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OUR LONDON LETTER.

ENGLISH CROP PROSPECTS.

(From our Regular Correspondent.)

London, August 10th, 1879.

Agricultural prospects vary according to the point of view. Not that any district is enjoying a cheerful outlook, but only that the gloom and discouragement differ in intensity according to the character of the husbandry pursued. In a general way it may be said that pastoral districts present a more promising aspect than the regions mainly devoted to corn-farming. The summer's grazing of cattle and of fattening sheep would be fairly prosperous, owing to the abundance of grass and the comparative quiescence of contagious disease, if the watery and abnormally-forced herbage had more "proof" in it, and if reasonable prices had been obtainable for the light clips which have not enabled the farmer to draw a handsome share of his year's proceeds in the shape of the wool-buyers' cheque. But on the other hand, breeding flocks have suffered severely—the losses of lambs have been disastrous from the persistent continuance of excessive dowfalls of rain, which have kept pastures and seeds and forage crops in sodden and unhealthy layers. Even dairy farmers are in difficulty, though their chief stress is the low market for their products, and the cruel encroachment of American cheeses upon the monopoly of quality heretofore enjoyed by home-made Cheshire, Cheddar and Stilton.

As to the hay harvest, while only a very small proportion of the meadow hay can possibly have been got well, and a larger quantity than probably at any former time has been spoiled in the rick owing to hasty and insufficient making, the quality of all is deteriorated from the mere fact of the lateness of the period of cutting—resulting in an over-ripe and woody condition of the grass and a waste of the nutrient properties which were at

their *maximum* when weather forbade the risk of putting in the scythe or mowing machine. Large breadths of meadow hay are at this moment lying in the swath—bulky growths, indeed, but hazardous to spread out properly with the tedding machine, and to treat *secundum artem* with a view to color, fragrance and quality, besides involving heavy labor of teams and hands just when all the forces of the farm are in demand for overtaking some of the tillage operations, such as the weeding of green crops, which the weather has made long over-due, and for the commencement of pea-cutting and other labors now pressing closely upon the heels of each. The crops of clover hay, too, is only partially secured. The actual destruction of hay by the catastrophes of flooding rivers and deluging rains and watersprouts must have been very great. Taking the condition of the principal hay districts into account, and applying the same throughout England and Wales, it may be that the fodder for next winter is many millions pounds, sterling, short in value.

The prospects for corn farmers, and for root-growers, for the winter keep of sheep, and also for the cleanly culture of land next year may be understood from a few notes with regard to particular districts. And as a sample of a fine corn country take parts of Essex and Hertfordshire, extending between Chelmsford and a point westward of Bishop's Stortford. In journeys by railway and a drive through the clay county of Rotherham and the kinder land nearer Chelmsford and about Dunmow and Bishop's Stortford, I am impressed with governing features—the failure of the barleys, the thinness of wheats, the foulness of the fallows and, indeed, of land, and the number of dung-heaps and farm-yards full of manure which the farmers have been unable to apply either for the present or next year's crops.

This year, of all others, the farmers, disappointed in their usual early wheat-seeding time, sowed more acres than ever with barley; and, indeed, an eye to the probable market has led them ex-

pect better money returns from the beer-making than from the bread-making cereal. But barley is more sensitive than wheat to climatic influences. The inclement spring and summer have damaged it more. The plant is so thin and the stems so weak that the whole crop must be looked upon as more or less a failure.

London, August 17th, 1879.

The hope of a revival of commercial prosperity which has recently been raised, and which has found expression in several quarters, is, so far as the present and the—immediate—future is concerned, doomed to disappointment. At any rate a revival of trade cannot possibly ensue upon a generally deficient European harvest. In Great Britain, the harvest is now certain to be one of the worst on record, not only in respect of corn, but also in the cases of hay, roots and other feeding crops, hops and potatoes. In France, the wheat crop is expected to be only two-thirds of an average, and the hay has been spoiled to a great extent by wet weather. All other continental countries will produce a crop more or less below average, including Roumania, with respect to which reports, a few weeks back, were very sanguine. Only on the American continent is a good crop of wheat expected. In the Australian colonies the harvest has been one of the worst ever known, and from India I hear no very favorable reports. The loss in great corn-producing countries alone will amount to hundreds of millions of pounds, and it is a dead loss which nothing can compensate for. A commercial crisis, which has resulted from over-production, rash speculation, an inflated credit system, or extravagance of living, may be tided over by the reversal of the of the conditions which produced it, though thousands of individuals may be ruined in the mean time, but a general deficiency in the natural productions of the earth is a loss for ever, and nothing can even partially compensate for it, unless it be a consequent alteration in the conditions under which agriculture is carried on, which may in the future be for the world's benefit.

It is impossible to estimate, with any approach to accuracy, the loss which the world will suffer from a deficient harvest. Even to take the United Kingdom alone, nothing better than a good guess at the loss can be given. According to Mr. Caird, the average value of agricultural produce, exclusive of hay, straw, wool, poultry, eggs, is 230, 237, 500 $\frac{1}{2}$. Now as the crops which are consumed by live stock, and go to produce meat and dairy produce, are quite as far short of the usual yield as the corn crops are, it is probably a very favorable

estimate to state the total agricultural produce at 20 per cent below average. Allowing, then, a comparatively small sum for the commodities not included in Mr. Caird's estimate, and dividing the amount by five we get at a loss of 50,000,000 $\frac{1}{2}$. I think this is much below what the agricultural loss for the current year will be; but it is easy to see that, if other European countries are losers to anything like a proportionate extent a general revival of prosperity is at present out of the question. In these days of gigantic manufacturing and commercial systems people are apt to forget that, after all, the soil is the fountain head of all wealth, and that if the spring is low then general impoverishment must inevitably result. The generality of people fail to realize the truth of abstract doctrines of political economy, and it is easier for them to comprehend the limited results of general causes in their own countries. Even these are far from obvious to people who are absorbed in the commercial whirlpool of great manufacturing towns and cities; but they are brought clearly and painfully home to country people, in towns. These people are generally, distributors merely—whether it be of commodities or knowledge—and they can only deal with each other in proportion to the profits which they derive from those who either produce or possess the proceeds of previous production. Land-owners, farmers and farm-laborers, who derive their means of living from the soil are the principal supporters of these middle-men. After a bad harvest, these producing classes have comparatively little to spend on anything but the necessities of life, or what have come to be regarded as such. Thousands of farmers are on the verge of bankruptcy; and as nothing but a good harvest could have saved them, and that is not forthcoming, there is only one result possible with them. Not only are they in arrears with their landlords and overdrawn at their banks, but their dear friends the usurers have been amongst them this year, and *they* are as sure indicators of ruin as vultures are of death. When the farmers become bankrupt they will be like the first ninepin that falls, knocking down others as they roll over; the latter in their turn, doing likewise. With a bad harvest in this country alone a winter of disaster must have been expected; and now that most other great agricultural countries are also in for bad harvest it would be idle to build hopes upon that revival of prosperity which sanguine people have lately been promising.

There is, fortunately, surplus of last year's crops in Russia, and the American exports will be abundant; but there will be so many competitors for the extra produce of these countries in the

coming winter that Great Britain will certainly have to pay more for bread-stuffs than was paid last year. There will be no scarcity; but higher prices for food. Thus the cost of production all round will be enhanced, and the spending fund diminished.

Farm Work for October.

The agreeable duty of gathering and disposing of crops devolves this month on the farmer. Corn if not already cut off and put in shocks, must be done at once. Tobacco is to be housed. Pumpkins and root crops can be gathered and put under cover or otherwise secured for the winter.

RYE.

If not sown already, sow at once and observe what we said of this crop in our September number.

WHEAT.

Wheat ought to be sown between the 20th of September and 15th of October. The best conditions for a good crop is a clay loam, clover ley, and clean, plump, heavy seed, which has been grown on a poorer soil or in a more northern latitude. Sow one to two inches deep, and with the drill. If the land is good, sow one bushel if drilled, or six pecks if broadcast, to the acre. Prepare the land well and use freely some reliable fertilizer. Lime should be applied if there is not enough already in the soil to act upon the vegetable matter. We advise strongly the use of two or three bushels of salt sown broadcast after the wheat has come up or during the winter—it adds to the strength and brightness of the straw, and to the vital energies of the wheat. It would be well if every farmer experimented with cultivating a few acres of wheat. To do this, drill it 18 inches apart, so as to admit every other tube of the drill to be taken out and a bull-tongue or shovel inserted in its place, by which the spaces between the drills can be cultivated next spring. If the increase justifies it, the following year, a machine for culture of wheat can be bought, and the increased product, as claimed by this method, can be obtained. In Europe where labor is cheap, the working by hand-hoeing is generally pursued with good results in this crop.

Poor land or bad preparation is fatal to wheat. It is a crop which is sure not to yield well, unless the soil is suitable—is rich naturally or highly fertilized, is properly prepared, and the grain carefully sown and covered. If the land is light, we advise a heavy roller after seeding, and again next spring after heavy frosts are over. Grass seeds can ad-

vantageously be sown just before the rolling, either in autumn or spring, and they will thereby be sufficiently covered and in the best way for early vegetating.

BUCKWHEAT.

Being peculiarly sensitive to frost, this crop should be harvested as soon as about half of the heads have turned black or dark brown.

CATTLE YARDS.

Cover the cattle yards with materials for absorbing the liquid and mixing in with the solid voidings of the stock, and to keep the yard clean and dry.

LIVE STOCK OF ALL KINDS.

Cows.—See that they have all the grass they can eat, and have slops at night or a quart of bran each, night and morning; mix the bran in water with a little dash of salt, and some green vegetables cut up or corn blades in a bucket of water. Pumpkins are a good substitute for bran, &c.

Horses and Work Oxen.—Keep these in good condition that they may go through their fall work and be hearty and in good flesh for winter.

Calves and Colts.—Keep these on the best grass or in the corn field if it is full of crab-grass, which is very fattening, and they will eat it in preference to corn blades—they do little hurt to the corn.

Sheep.—Separate the lambs, wethers and sheep for sale from the 'breeding' ewes to which let the buck. Attend to all, and use every precaution against dogs—plenty of bells, a ready at hand gun, and "notices" against dogs trespassing.

Beef Cattle.—On Fall pastures will lose flesh rapidly, unless provided with plenty of green fodder and corn ground with the cob, or some new corn on the ear twice a day.

Hogs.—See that your fattening hogs are well fed; it is poor economy to stint them in good food. They should be kept dry and clean, with access to small lot or pen to root and exercise in. They should have pure, clean water at all times, a little salt often, charcoal, corn, boiled messes composed of potatoes and other vegetables mixed with meal and bran, and small grain, like rye, oats, &c., raw pumpkins, fruit, &c.; by such food much corn will be saved, until the last three weeks of the fattening process, when grain should be the entire food to harden their flesh and fat. At small cost and labor much nice pork can be made in 60 days while the weather is mild. In cold winter, hogs do not fatten kindly. Every man should raise more pork than his household can consume, even if bacon can be bought at low prices. It never can be bought as cheap as it can be raised in small

quantities on a farm, because there is so much offal on a farm that if not used by pigs, would be not only wasted, but would be annoyingly in the way. Keep a good breed — Berkshire, Essex, Poland China, or that excellent farmer's breed, Cheshire—either of these will well repay for their keeping in good condition all the year, when they will be found to be very docile and profitable.

DRAINING.

If any draining is to be done, now is a good time to prosecute the work. Fields can be cleaned and the bushes and briars piled to be burnt when dry.

ORCHARDS.

Gather the fruit as it ripens and place in barrels carefully. Make cider this month. Pears should be gathered before being fully ripe on the trees. Late keeping sorts are to be gathered next month just before frost. Do not bruise the fruit, put on shelves in a cool dark room or in barrels. The choice sorts may be wrapped in paper and packed in boxes or barrels, and kept cool as possible without freezing.

Fruit Trees may be planted out this month. Recollect no man should be considered a good or thoughtful farmer who does not yearly plant a large number of fruit and other trees, and take care of them after they are planted, until they bear and get out of the way of being harmed by stock. Trees, young trees especially, require cultivating, fertilizing and light pruning, and being kept free from insect enemies. Good fruit always pays and adds much to the intrinsic value of any farm.

Garden Work for October.

We have but few suggestions to make as to work to be done in the garden this month.

Spinach.—That which was sown last month should now be thinned, hoed and mulched with half rotted stable manure, and lightly covered with brush. The round spinach is best and most productive and stands the winter well. If none has been sown yet, it is not too late to sow, if it be done at once.

Lettuce.—Set out plants on a rich, well prepared border; plants six inches apart and mulch with straw or leaves before cold weather sets in. The black seed Dutch lettuce is best and hardiest for winter.

Endives.—Tie up for blanching.

Corn Salad.—Sow more corn salad seed, it is a delightful salad in spring.

Celery.—Water freely in dry weather. Earth

up when the ground and leaves are free from wet or dew.

Rhubarb.—If you have not, buy some roots; twelve good roots will be enough for a family. Plant this month in a good soil and mulch heavily with coarse manure.

Small Salading.—Make your last sowing for the season of small salading of sorts.

Cauliflower and Brocoli.—Work these carefully during the month and do not let them suffer for water. Toward the close of the month or just before they flower, give them a good hilling,

Shallots, Garlic and Chives.—All these bulbs should be planted out this month on a good soil. Plant shallots in rows one foot apart, and three to four inches apart in the row; garlic bulbs or cloves, one foot apart, two inches deep and six inches apart in the rows; chives in a bed ten to twelve inches apart each way.

Garden Herbs.—Sage, Thyme, &c. Set out plants of these in moist weather. Do not neglect to have an abundance of herbs of all sorts. In cooking and in sickness, the culinary and medicinal herbs are often indispensable and hard to be obtained just when wanted, so they should be in every garden ready when required.

Horse Radish.—Plant largely of horse-radish, it is always salable and brings good price.

Setting out Cabbage Plants for early use next Summer. Prepare a bed heavily manured, by deep spading and well raking. Throw it up in ridges parallel from 30 to 36 inches apart, and 4 inches in height; press the slopes compactly down with the back of the spade, and set the plants midway the ridge and on the north side of it about 6 inches apart. Towards the close of November, strew stable manure or long straw along the valleys between the ridges. They can remain until the earth is fit to cultivate in the spring when we shall have more to say as to their future culture.

Strawberries.—Clean off the bed nicely, loosen the ground between the plants and in the rows, and top dress liberally with rotted manure and wood ashes. Before frost cover with leaves or straw, and some light brush to keep it from blowing off.

Gooseberries, Currants, Raspberries and Blackberries.—By all means plant a full supply of the best sorts of all these berries as they are wholesome and much relished in the family, and all not needed at home can readily be disposed of among your neighbors or in the markets. As a market production they are very remunerative. The ground should be fertile and well prepared and

drained. They should be planted in rows 6 to 8 feet apart to admit free circulation of air. The spaces may be filled up with low growing vegetables to insure good cultivation. The gooseberries 6 feet apart in the rows, and the currants and raspberries the same. The blackberries 8 feet apart. Keep all within proper bounds by pinching and pruning. Cut out all dead wood as it appears, and remove the canes of the raspberries after bearing, leaving only two or three young shoots at each hill to grow 4 feet high and then topped, to bear fruit next year, and put up other shoots to take the place of the canes that bore fruit the same year.

We recommend as the best sorts, of currants, the old red Dutch, and the new Cherry, the white Dutch and the black Naples; of Raspberries, the Philadelphia, Antwerp and new Cuthbert, and the Gregg for a black raspberry; of blackberries none are better than Wilson Early and the Kittatinny; for gooseberries we say, the "Downing Seedling" will meet all wants.

We would here remark that it is not too late to secure some of the new varieties of strawberries, of which we recommend Sharpless, Springdale, Forest Rose, and Crystal City for a very early sort, and Captain Jack as a fine berry for late use. Of course, at least it is to be hoped, every one who has a garden has a full supply of the best of the old sorts, such as Wilson's Albany, Filmore and Triomphe de Gand, with a lot of Hautbois and Alpine Bush strawberries. No garden is complete, no place is worthy of notice that has not strawberries and other berries in profusion.

For the Maryland Farmer.

Close Farming.

The success of all kinds of business depends wholly upon how thoroughly it is pursued, and the amount of care bestowed towards securing the best results. Thus, in manufacturing the very best raw material may be secured, skilled help employed, and yet the machinery be so poor as to be unable to produce a satisfactory fabric. Or on the other hand, the machinery may be all right, and the material poor which will produce a similar result; or still again, with good machinery and excellent material, poor help may spoil the job. It is clear, then, that a combination of conditions is necessary to the highest success.

The same is eminently true of farming in order to be most successful and profitable it must be closely conducted. It will not do to be pouring in at the bung while the contents are not only running away at one, but perhaps more spigots.

The soil may be all that is desired so far as fertility is concerned, and well planted, and yet so poorly tended as to prevent that success which otherwise would follow. But it is necessary to search some of the newer, western sections of our country to find a soil that possesses sufficient fertility for the production of successive crops without some additions; in fact, in the older sections of our country, deplorable as it may be, the soil has drained of its native fertility by successive cropping without an equivalent return; this has created a tendency towards the cultivation of too great surfaces or too large arrears.

Men are differently constituted, and while some are content with few acres which they can well tend, others have an unconquerable desire for boundless acres and take pride in being denominated large land owners, and yet, much of it would be of that quality of land, that, as a careful farmer remarked quite recently, a man could not *afford* to take, even if it was given to him. The same peculiarity develops itself in a desire to have many acres under cultivation, no matter what the yield of crops may be. Such persons always measure their crops by the number of acres that they have under cultivation, instead of the number of bushels, which sometimes would not give a large average yield per acre.

We have never yet been able to discover where there was long advantage gained from attempting to grow twice as many acres of corn or any other crop as could be well done with the manure at hand; why it is better, in other words, to spread manure over twenty acres, which must be plowed, planted, cultivated and harvested, when by applying the same manure to ten acres, with proportionately less labor just as much could be produced, and yet this is done year after year by those who are looked up to as examples in farming.

It would sometimes appear as though farmers as a class were difficult to be convinced of those things that are of great benefit to them; thus, while there so many that speak of the great advantage of under-draining moist lands, citing cases where the first succeeding crop fully paid for all the expense of improvements made, to very many it looks like burying labor and money to enter into under-draining. It is an old saying that, "what man has done, man can do," applying this to the one matter of growing corn, and when we see the many cases of cultivation in which the yield is considerably rising of one hundred bushels per acre, and compare that with the average yield of thirty or forty bushels per acre, we at once conclude that there is something to "intense farming," and the sooner it is engaged in the better. So, too, when four

hundred or more bushels of potatoes are grown upon an acre as against less than one hundred the average yield, it looks as though there should be a "new departure," and closer farming adopted. We are very strongly in favor of a concentration of effort. If many acres are possessed, sell some, or even give it away, rather than be hampered with too much; let what is cultivated, be so well cultivated that it will tell for years long afterwards. We have a case in point—a gentleman of skill in agricultural management made a purchase of the manure at a hotel stable for seven tons of hay, expecting to put upon it a crop of tobacco; it was spread upon two acres and afterwards changing his mind, the piece was plowed and seeded down in the fall; the next he cut from that two acres, seven tons of hay, thus getting back the hay paid out and yet having his land in such a condition as to produce immense crops. In this connection it may be said that this same gentleman has seventeen acres of meadow land which under his skillful management has this season produced rising of sixty-eight tons, or more than four tons per acre.

Now, how much better it is to cut that amount from the extent of surface named than to be obliged, as many are, to go over three or four times the same amount of surface in order to secure an equal amount of hay. Better by far let the land run wild and grow up to timber, until such time as the increase of population shall demand it for proper cultivation. It is by no means improbable that the time will come when a large portion of our country will be so closely settled as to require that all available space should be cultivated like a garden in order to secure sustenance for man and beast; then why not commence at once to make the surface of our goodly heritage to "bud and blossom as the rose" upon legitimate areas, leaving to those who are yet to "possess the land" a portion of the toil of original subjugation?

WILLIAM H. YEOMANS.

For the Maryland Farmer.

SANDY SOILS.

Of all soils to be cultivated, or to be restored, none are preferable to the light, sandy soils. By their porousness free access is given to the powerful effects of air; they are naturally in that state to which draining and subsoil plowing are reducing the stiffer lands of England. Manure may as well be thrown into water as on land underlaid by water. Drain this, and no matter if the upper soil be almost quicksand, manure will convert it into fertile, arable land. The thin covering of mold scarcely an inch in thickness, the product of

a century, may be imitated and produced in a short time by studying the laws of its formation. It is a well recognized fact that, next to temperature, the water supply is the most important factor in the product of a crop. Poor soils give good crops in seasons of plentiful and well distributed rains, or when skillfully irrigated; but insufficient moisture in a soil is an evil that no supplies of plant food can neutralize.

Sandy soils are rich in mineral constituents, and fail to give good crops in time of drouth only, on account of their inability to retain moisture. This can be obviated by the application of peat, or clay, or the sowing of clover—all of these enable it to retain moisture in times of drouth—and the decay of the vegetable substances in the soil give off carbonic acid, a powerful solvent of the soil. Peat contains two per cent. of nitrogen, or the same quantity as barn manure; but, as it is dug out, its nitrogen is locked up in insoluble combinations, and, applied to land in this condition, brings in sorrel and coarse grasses; composting it with soda ash, to neutralize its acid, renders it soluble and fits it for food for plants at a cost of about two cents a pound for nitrogen. A cord of peat, as dug, weighs about 9,000 pounds, and, well dried, will lose three-quarters of its bulk.

To this quantity add 100 pounds of soda ash, well mixed through it, in powder or solution, depending upon whether the peat is wet or dry, and leave it in a heap to ferment. The heap will need to be larger in cold than in warm weather to accomplish this; and, after it is fermented, turn it over once and it is then ready for use and in all respects equal to barn manure. If the land is in condition to bear clover, it is easily brought to a state to produce any crop; and, if not in such condition, it can readily be made so at a trifling cost for fertilization. A crop of three tons of clover contains the following constituents: 117 lbs. potash, 5.4 lbs. soda, 55.2 lbs. magnesia, 153.6 lbs. lime, 44.8 lbs. phosphoric acid, 13.6 lbs. sulph. acid, 12.6 lbs. chlorine, 12.6 lbs. sulphur, 127.8 lbs. nitrogen.

Soils are not exhausted when it is seen the power a suitable crop has to liberate and convert the insoluble substances existing in the soil and store them in the plant for future use. The clover should be cut for fodder the first year; the second year cut it once for fodder, then allow it to grow again and go to seed, which save for future use, and there is left in the soil to the depth of ten inches 6,580 lbs. clover roots, which contain 77 lbs. potash, 19 lbs. soda, 46 lbs. magnesia, 246 lbs. lime, 71 lbs. phosphoric acid, 24 lbs. sulphuric acid, 180 lbs. nitrogen, available for a crop which, when plowed, leaves the land clear, light, retentive of

moisture, and easily tilled, with available constituents in the clover roots and soil enough to produce any crop profitably, and the necessity of purchasing fertilizers and applying them is saved. The farm is made, as it should be, self-supporting, but it can only be done so by a judicious rotation of crops.

If this is not resorted to, fertilizers, which are much more costly, must be supplied. The constituents in clover roots above, amount in value, at prices commercial fertilizers are calculated at, to 35,17 for the nitrogen, phosphoric acid and potash alone, saying nothing of the other constituents, which are equally as important to the growth of crops. Rye is also a good crop to grow. There is left in an acre of its roots and stubble 3,400 lbs. containing 30 lbs. potash, 40 lbs. soda, 14 lbs. magnesia, 69 lbs. lime, 24 lbs. phosphoric acid, 62 lbs. nitrogen.

ANDREW H. WARD.

SUGAR BEET.

The culture of sugar beet in Maine is rapidly increasing. The farmers get \$5.75 a ton delivered at any depot in the State. As much as 30 tons have been grown to the acre. The best soil is a deep mellow sandy loam, richly manured. The ground should be well prepared and frequently stirred. It makes leaves first and then root. After the leaves are well grown, it needs no more cultivation. In Maryland and other Southern States we have the best sort of soils for sugar beet, and our farmers could and would grow great quantities if capitalists would invest in sugar mills and refineries, which pay large dividends wherever they have been established. We take the following from the *New England Farmer*:

Within the past few weeks there has been a rapidly growing interest developed on the subject of raising sugar beets in Eastern Massachusetts, as well as in some other parts of the country. The encouraging prospects of the industry, as now carried on in the neighboring State of Maine, are waking up both the capitalist and the producer, and inviting a better acquaintance with the business. The Franklin Farmers' Club, of Norfolk county, both officially and through the energy and enterprise of individuals, has recently been investigating the subject, with a prospect of establishing a factory in the vicinity capable of manufacturing sugar on an extensive scale. President E. L. Metcalf, with Secretary Gardiner Adams and a few members of the club, have lately returned from a week's visit to the beet fields and sugar refineries of Maine, and come back with increased interest in the enterprise. On Tuesday of last week, Mr. John Sparrow, of Portland, Maine, by invitation, lectured before a large and enthusiastic audience of farmers and others in the Town Hall, Franklin. Among those present we noticed not only most of the leading farmers of the town

but many from Bellingham, Medway, Wrentham, and other towns in the vicinity. We have no room for more than a notice of the lecture this week, but will give a more full report in our next issue. Since the meeting steps have been taken for forming a stock company with capital of \$100,000, and the location of the works is being discussed. If the enterprise proves successful, it will give a new impetus to agriculture in this section and will add materially to the prosperity of Eastern Massachusetts.

In addition to the above, we insert an extract from a California correspondent of the *Baltimore Sun*, alluding to beet sugar manufacture in that State. He says:

"Baltimore is in a superior position for a beet-sugar center. She has great advantages over all German ports. Maryland, with its length of growing season, can give larger growth and more saccharine value to the beet than Germany, and, considering your summer rains against our entire absence of rain from May to October, we should prefer Maryland to California for profitable beet sugaries.

"This age makes a specialty of rummaging among the cast-away refuse of factories to find evil that can be converted into good. The latest success is the utilization of the unsavory sediment from beet-sugar molasses, after distillation. A fluid is obtained, chloride methyl, which has so rapid evaporation that it reduces the temperature 67 degrees below zero (Fahrenheit.) Mercury freezes at 28 degrees below zero. This new evaporator will expedite and cheapen the make of artificial ice, now coming into general use as a substitute for natural ice. At present ether and ammonia are used for refrigeration. The water to be frozen is put in very narrow metal tanks, to make the greatest surface external exposure. The refrigerating fluid is brought in outer contact with tanks. In evaporating any fluid, heat in some form must be applied to convert it into vapor. This heat is abstracted from and passes through the metal to the ammonia. Abstract the heat from water and it is ice. When the water is supplied to the tanks in spray it freezes on the instant.

"France and Germany get their sugar from beets; but the syrup is unpalatable. The chloride methyl will, therefore, be abundant and cheap for ice-making and for many other purposes. Drying sliced beets for sugar-making is now being under experiment at the Alvarado Sugar Works. No one doubts that it will be a great improvement, financial and chemical, over working raw beets. The bulk to be treated is reduced from 100 to 16 pounds, 84 parts being water. Then the mass is half sugar instead of only eight per cent. sugar and 84 of refuse. But experiment must teach us the best way to work with the dried beets.

"We have letters of inquiry from Maryland asking the cost of drying, and the consistency of the beets when dried. Butt's drier will cost a first outlay of \$100 to the ton of its daily capacity. If you require to dry fifty tons of raw beets every day the permanent drier of wood and iron will cost \$5,000. Then \$1.50 per ton will dry the beets, first sliced by machinery. The consistency is exactly the same as all fruits now dried by this ap-

paratus. The exterior is impervious to air and to insects; the interior is quite pliable. No sugar is lost by drying. Beets, so cured, keep more than a year in a dry apartment. Roots crops sometimes short, and the best seasons afford but three months' work for the sugar mill. But drying enables you to keep the work-a-going the year round. Of course, when we speak of beets we mean sugar beets, such as the Silesian, the seed of which can be got from Germany, and nowhere east will it grow better than in Maryland."

The Poultry House.

We give the balance of the excellent article on Geese in the *Poultry World* as follows:

THE BREEDING OF GEES

is a very simple process, where the farmer or poulterer has the proper surroundings and facilities on his place to grow them. But water is a prime necessity for their accommodation; and without this—in the shape of marsh, run pond, swamp or sea-shore estuary—geese cannot be reared to advantage, of course in any quantity.

Usually a gander to three or four geese will be found sufficient. But they will better breed in pairs than otherwise, as the male of this breed (like the cock-pigeon), when the female is sitting guards the nest while the goose is away feeding, daily.

The gander is at his best for service after his third year, and he will last many seasons in full vigor. As layers, geese are at first inconstant. After they are more mature, they will lay pretty regularly, and will yield a litter of fifteen to eighteen eggs before inclining to be broody. But all depends upon the weather and the season of the year.

Occasionally old geese will lay in a year as many as sixty to seventy eggs, but this is not of common occurrence. The average number is forty-five, or less. If they can have plenty of water and pasture ground to roam in, geese will thrive and grow, without getting fat, if they have little or no feed besides.

When the goose is ready to lay, you will notice that she carries straw, sedge or stubble in her bill to make a nest with. Confine her in a shed-roofed box, and she will shortly show her eggs. In the same nest where she deposits her first egg, usually she will lay out her litter of fifteen to twenty eggs. When broody, she will remain upon her nest, after laying. Give her a deep, oval nest to sit in, and let her have thirteen to fifteen eggs to sit upon. She will bring forth her brood in twenty eight to thirty days (according to the warmth of the season) and if left alone and undisturbed by the rest of the

flock, or by other interference, the mother will almost invariably take good care of her goslings from the outset.

While incubating, the goose should be well fed. If left to gather her own sustenance, she will frequently remain away from her eggs too long, and allow them to chill in cold weather. Food and water near by, within the house where she sits, will obviate this.

Like newly-hatched chickens, the young goslings do not need food for twenty-four hours after hatching. Then give them stale bread, scalded bran and potatoes, milk curds, dry boiled green stuff and hard-cooked eggs for a week. Keep them *away* from the water for two weeks, and house them, dry and warm, until they get strong on their legs.

The goslings may be allowed to follow the mother to the open water when fifteen to twenty days old, with safety. Previous to this time, their down is not a sufficient protection against the chilling effects produced by their earlier indulgence in the swimming bath. From this time forward the young must be regularly housed at night, and fed for some weeks steadily with soft food of meal and vegetables at morning and evening. They will under this treatment, grow smartly, and soon learn to become active foragers and grazers, like their parents.

Rats will devour young goslings, if they have opportunity, and chance to be plentiful in numbers in the immediate neighborhood of the geese-pens. But they do not trouble the geese. The fox is the most dreaded enemy to the goose-keeper. But his depredations are limited in great part in the night time. It therefore becomes a point of consequence to goose-growers to make sure that the houses in which geese are sheltered at night are fastened up and are fox-proof.

The weasel, the shunk, the muskrat and the mink will assail geese also. And where a large flock is cultivated they will attract these night vermin to their quarters from a long distance, frequently. Care should be had, therefore, to make the house a protective shelter against the probable or possible incursion of these marauders.

The building where the geese lay and sit, and where previously they resort at night to roost, may be a plain board or plank lean-to shed, six feet high in front, and running back to four feet high, for walls. Shingle or batten this tightly. And when the young ones are hatched out, care should be taken that the floor is kept dry for two or three weeks, lest they take cold and die off before they are two weeks old.

The floor of the house should be kept *clean*, also

when the young goslings are about. And for a month after the hatchings, it is best to confine the mother and young by themselves. The little ones need to be better fed than the old birds, and consequently (until they go to the water) they should have a small pen away from the main flock to dwell in exclusively, with the mother goose.

Geese are hardy under ordinary fair treatment. There is very little sickness among them, usually, and they live to a ripe old age, if permitted to do so. But commonly, it is desirable to slaughter and market this race during the first year of their lives. A yearling goose (or gander) is at its best for eating at ten to twelve months old.

They should have good foraging ground from the beginning, and it is better with these (as with turkeys) intended for marketing that they should in some way be well fed always, from goslinghood to early winter time. Then they may be quickly fattened, when put up at last.

The flesh of geese is very desirable eating, but they must be fattened and slaughtered at Christmas or New Year's to render them the most salable. Old geese are not toothsome, ordinarily.

For fattening, the best corn meal and potatoes boiled together are as good a kind of food as can be given them. They should have all they will eat of this three times a day, just before killing, and in a brief space of time they will be in readiness for the butcher and a market, where they will command a good price, among seasonable dead poultry.

During the summer and fall they will resort to the pasture-pond, or stream, and obtain green food and other desirable provender, to their satisfaction. At night, when they return to their houses, give them a dish of mush, or a supply of sound whole corn. This will keep them till morning. Then furnish the early meal, and set them at liberty for the day.

In this way, systematically managed, geese may be raised by any one, with but slight experience even, to their satisfaction and pecuniary profit, upon premises where the stock may be able to gather a goodly portion of their daily food on the meadows or streams adjacent to their coops or houses, which are best built near the margin of the water they daily visit, for feeding and pasture.

The feathers of an adult goose will weigh about a pound and a quarter annually. Some persons pluck them twice, some thrice in a year, and obtain five, six or eight ounces at a time.

Inasmuch as there exists no extraordinary difficulty in raising geese, since at maturity these splendid water-fowls are salable at a remunerative

price, when fattened and slaughtered; and when it is considered how valuable are their feathers, it certainly seems that much greater numbers might be bred in this country, to advantage, than our poultrymen and farmers hitherto deemed it advisable to produce. The demand for geese will increase as this article of food becomes appreciated.

GAPES.—We have learned to jest at gapes by making free use of camphor. We give to a chicken in a very bad case a pill the size of a garden pea. As soon as we see symptoms of gapes we give the birds water to drink which is strongly impregnated with camphor, thus giving to the chickens that which was a favorite medicine with our great grandmothers—"camphor julep." The gapes or gaping is caused by the presence of small red worms in the windpipe. No medicine can reach them, unless in the form of vapor. An hour after the chicken has swallowed the pill it smells of camphor. Camphor is a very strong vermifuge, and the worm dies.—*Rome Herald.*

How to Save Clover Seed.

One of our best clover seed savers is just at our elbow, and he says: "Tell them the second crop is for the seed, and is really fit for no other purpose, as it salivates the stock fed on it; that the best time to cut for seed is a very nice point to determine. It should be cut when a majority of the heads turn brown, and before any begin to shed off the little seed pods, each of which contains a seed. Cut the second crop of clover just as though it were for hay, rake it into windrows, and let it lie and take one or two showers; then put it into very small cocks while damp, about one good pitchforkful in a place, and when it is dry put into stacks and cap with something that will turn water; or what is still better, if you have a shed or barn, put it there and let it remain until you get a huller to take it out for you. There are hullers enough now in the State to hull all the seed needed for home use, and the owners of the hullers are willing and anxious to go to any section where work can be had. Let our farmers save all the clover seed they can, and thus help to make thousands of dollars for the State, now sent out each year for clover seed to sow."—*Rural Sun.*

THE MARYLAND FARMER for September is at hand, fresh, spicy, and full of interest in all of its various departments. No family should be without it, as it can be had for the low price of \$1 per annum, in advance. Published by Ezra Whitman, Baltimore, Md.—*Germantown Commercial*



"NETHERLAND QUEEN," IMPORTED HOLSTEIN HEIFER, TWO YEARS OLD, Property of SMITH & POWELL, Syracuse, N. Y.

MILK RECORD.— 58 lbs. 12 oz. in one day, 1670 lbs. 9 oz. in one month, 7239 lbs. 9 oz. in 5 months.

Live Stock Register.

HOLSTEIN CATTLE.

Just at this time when this breed of cattle is attaining such a high position in this country—when they are attracting the attention of all dairymen, and seem destined to take the first place among the dairy breeds in America—we are glad to be able to place before our readers such beautiful cuts of two such elegant animals “Uncle Tom” and “Netherland Queen,” which are both of the herd of Messrs. Smith & Powell, of Syracuse, N. Y. “Uncle Tom” is 4 years old; weight, about 2100 lbs. At the State Fair of New York in 1878, then but 3 years old, he was awarded the first prize in the class of aged bulls and with a large class of competitors.

At the same fair “Netherland Queen” was also awarded first prize as a yearling heifer. In March last before she was 2 years old she weighed in ordinary flesh 1,155 lbs. She dropped her first calf early in April, when about 2 years old, and gave on dry feed 58 lbs 12 oz. of milk in one day, 1670 lbs., 9 oz. in one month, and up to the 3d day of September—just 5 months from the time of calving—she had given 7,239 lbs. 9 oz. by actual weight. Bear in mind that this is a heifer only 2 years old. Messrs. Smith & Powell have several other two year old heifers that have given 40 to 44 lbs. in a day.

These gentlemen are probably the largest importers of Holstein cattle in this country. Within the last year they have imported 110 head. They select their animals in person from the choicest herds of Holland, and import only those whose dams have a large milk record, which will account for the enormous yield of the heifers above alluded to. They have several older cows with records corresponding with the above. “Porceleintje,” 5 years old imported last winter, and laboring under the disadvantage of change of climate, feed, care, &c., gave in one month 1810 lbs.

The general introduction of this stock will change the whole dairy business of this country. The dairyman will no longer estimate his business by the number of cows he milks. Previous to to their introduction such records as 12,000 to 14,000 lbs. of milk a year was unknown. They are now common and as high as 16,000 lbs. by these cows have been attained. In favor of this breed as butter makers the following report of L. S. Hardin, who is not a breeder and entirely uninterested, speaks volumes:

“Contemplating publishing a pamphlet on ‘Mod-

ern Butter Making.’ I have written to all the famous breeders of dairy stock in the country to try and get information sufficient to settle the vexed question as to which is the best butter breed. From the best information I can get I have made up the following table.

NAME OF BREED.	No. of cows in herd.	Lbs. of milk per cow Per annum	Lbs. of milk to lbs. of butter.	Lbs. of butter per cow per year.
Short Horns.....	28	actual		252½
Ayrshire.....	11	5469	25	273
Jersey.....	14	5625	20	281
Natives.....	17	actual		302
Holsteins.....	12	8767	25	350

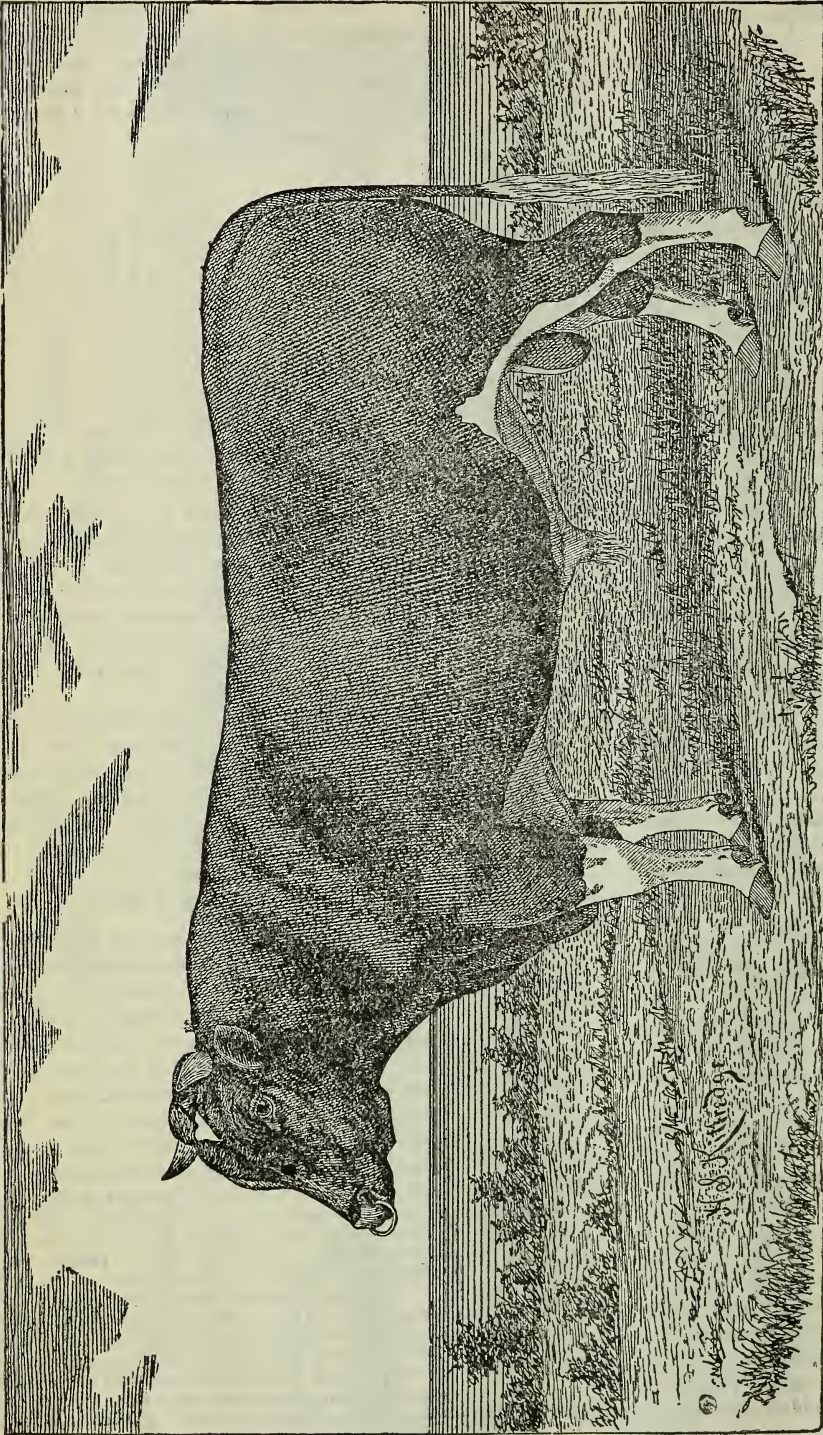
The basis of this table is the yearly yield of a herd of not less than ten cows.

“I have not been able to get any reports from herds of Guernseys, Devons or other breeds. In making the above table I have tried to show no partiality, and will be thankful to any one who will point out errors or produce better records, giving only the actual yield of milk or butter of every cow in a herd, for the year, eschewing all estimates and allowances.”

It is claimed for these cattle that they combine more desirable qualities than any other breed. They are large, the cows frequently weighing without fattening 1600 to 1700 pounds. They are enormous milkers; keep easily; fatten readily and are unusually quiet and docile in disposition

How to Hitch a Horse.

The *Country Gentleman* says that, incredible as it seems, not half the tavern-keepers, hostlers or teamsters know how to tie a horse, either putting some clumsy knot that is troublesome to undo or making a hitch that is insecure. The proper way, after passing the tether around the thing to be attached to, is to make a half-hitch, passing the end of the strap through the loop. If the horse, nibbling, pulls it, he merely ties the knot tighter. And to unhitch, it is only necessary to remove the end from the bow, and it is instantaneously loosened. Not one-fourth of the butchers or farmers know how to tie the legs of a calf or sheep for transportation. The majority of people, when they want to make the animal very secure, wind the cord tightly around the legs, causing pain from congestion. The proper way is to make a half knot only on each hind and fore leg alternately, fastening with a bow at last, which is easily untied. I find, usually, a pocket-handkerchief the handiest thing, it being about the right size. Tied in this way they are absolutely secure and without pain.



"UNCLE TOM," HOLSTEIN BULL, FOUR YEARS OLD. (H. H. BOOK, VOL. 2, No. 103.)
PROPERTY OF SMITH & POWELL, SYRACUSE, N. Y.

Percheron-Normans.

These are frequently called Normans, or French horses, in the Western States. But by whatever name called they are all practically the same, and are distinguished by their uniformity in color, being nearly always grey. Occasionally a black, roan, bay, or chestnut is seen; but fully ninety per cent. of them, both in this country and in France, whence they are imported, are grey. Those imported to this country will range in weight from 1400 to 1900 pounds. They usually have good heads, rather short necks, with rumps rather short and often a trifle drooping. The breed originated in La Perche, an ancient province of France, and importations from that country to the United States have been very large since 1852. Many mares have been imported, and a stud book is published in which the imported as well as the native purely-bred animals are recorded. A few stallions have been imported from northern France and from Belgium—some of them greys, but usually bays—that are rather larger and coarser than the Percheron-Norman Stud Book.—*National Live-Stock Journal*.

On the 6th of September, we saw on board of a steamer for Philadelphia, two of the finest specimens of the Percheron we have ever seen, light greys, bred by W. T. Walters, Esq., of Baltimore. They were for exhibition at the Pennsylvania State Agricultural Society. They are certainly splendid evidences of what good blood of a prime strain can show by good keeping and judicious management in Maryland. This breed of horses is daily becoming more popular for crossing on our good country mares. Their great size, and endurance, and activity make them very valuable for that purpose.

The Pig in Agriculture.

The pig has recently been spoken of in contempt when compared with our other domestic animals. But if we examine his good qualities at all critically, we must award him a high place in our agriculture.

He is found to produce a pound of product from less food than either cattle or sheep, and is therefore, the most economical machine to manufacture our corn crop into marketable meat. Our people are becoming wiser every year, and exporting less proportionately of the raw material, and more of condensed product. If it takes seven pounds of corn on an average to make a pound of pork, as is no doubt the case, the farmer begins to see the great economy of exporting one pound of pork, bacon or ham, instead of seven pounds of corn. The difference in cost of freight makes a fine profit of itself; beside the pound of meat is usu-

ally worth more than seven pounds of corn in the foreign market. The production of pork should be encouraged on the further consideration that it carries off less of the valuable constituents of the soil than beef. The fat pig contains only three fourths as much mineral matter per hundred weight as the steer, and only two-fifths as much nitrogen per hundred weight; and therefore the production of a ton of pork on the farm will carry off only a little more than half the fertility carried off by a ton of beef; beside, a ton of beef will require nearly fifty per centum more to produce it. This gives in round numbers the comparative effect of producing pork and beef. It is thus evident that the pig should be fostered in every way, his capabilities studied and pushed, his diseases carefully noted and prevented, for he is the most profitable meat-producing animal on the farm. The pig is an excellent adjunct to the dairy, turning all the refuse milk and even whey into cash. As he is king of our meat exports, so let us treat him with great consideration.—*Moore's Rural*.

Tri-State Picnic Exhibition.

This exhibition was held at Williams' Grove, near Mechanicsburg, by the Grangers, the last week in August, and was an unexpected and remarkable evidence of the interest felt in agricultural pursuits. On one day there was a crowd of 15,000 to 20,000 people. We are indebted for a full report of the meeting to our valued exchange, *Farmer's Friend*, from which we learn that the weather was delightful, and there was a grand display of machinery and agricultural products, besides visitors from seventeen States and 340 Granges represented. The Cumberland Valley never before had such an awakening. The best of all, it was an intellectual feast, furnished by such men as Armstrong, LeDuc, Deatrich, Prof. Heiges, Hon. F. E. Beltshoover and others. It is this intellectual feature that gives value, and is of the greatest importance to all fairs of this sort. The Association awarded only donated premiums to Granges. The Committee of Inspection only noticed favorably the various implements exhibited which were worthy of commendation. We were pleased to see that they closed their report on this branch of their labors by thus speaking of the Young America Corn and Cob Mill:

"E. Whitman, Sons & Co., manufacturers, No. 141 West Pratt Street, Baltimore, Md., had on exhibition a Corn and Cob Mill, which did its work more thoroughly and perfectly than any article of the kind we have ever examined. This mill should go into general use among farmers."

THE DAIRY.

Breeding Cows for Butter.

The use of pure bred males upon miscellaneously bred females is justly regarded as one of the chief means of improving live stock. It is equally important in breeding cattle, sheep, swine or poultry, and the application of the same principle in horse breeding is fully recognized. We say, when we speak of a heifer by an Alderney bull and dropped by a common cow, "she is half Alderney". This word "half" does not by any means indicate the measure of Alderney characteristics which the heifer possesses. We might with greater propriety say "she is half Alderney by blood and seven eighths by nature." Some well bred bulls will impress the characteristics of their own breed so remarkably that many of their off spring might pass as pure bloods; others possess this quality, which is called prepotency, so slightly that their off-spring take after their race but slightly. Such bulls, though perhaps well bred, are valueless, but they are very rare among full bloods of any breed. Among the grades of any breed, and among cross breeds of any dissimilar breeds, bulls lacking this invaluable quality of prepotency are the rule rather than the exception. Now and then a grade bull will get very good calves with considerable uniformity. Very fine looking grade bulls are common, and it is hard to convince common farmers that they are not just as good for use as pure breeds which, perhaps, do not look so well. The difference in the herds of two breeders, one of which uses pure bred bulls, the other scrubs or grades, is always most obvious; but "none are so blind as those who will not see," and the writer has long ago given up the effort to convince men for their own good against their wishes. The old saw puts it truly, "He that's convinced against his will is of the same opinion still." Farmers will continue to use scrub and grade bulls, and by so doing the unreasoning ones will give to the others great advantages.

Those who select bulls for beef points will raise the best steers. Those who wish to make milk will breed from bulls of the great milking breeds, and in butter sections it is equally important to use only bulls of the best butter breeds, the Jerseys and Guernseys standing pre-eminent. But among Guernsey and Jersey herds we do not find all the cows good butter makers, while among those which are really good there is an enormous disparity.

It is a good cow which gives ten pounds of butter a week. There are many which give twelve

quite a number which yield fourteen, a very few sixteen, eighteen or even twenty. Now these are not, so to speak, sporadic or isolated cases, but more or less in families. That is, we find that a number of good cows will generally be found in the progeny of one famous one.

What we want is to be able to breed great butter yielders every time. This might occur occasionally, or often, when the progeny of one great butter cow is rather closely inbred, but with very much greater probability when the blood of different families, each famous for its butter yield, is combined. In each there is a "prepotency" for butter production, and as the families are not akin, we really combine the two, and, if each prepotency is equal to the other, then we have a double force, whereas in breeding in one family we have only the single force, no matter how its parts are combined.

This, then, seems to be the rule for breeding prodigies of any kind. First, discover or establish in two families the particular prepotency, that is, the quality which produces similar characteristics say a great yield of butter—in many or all the individuals of a family; second, combine these two families. It is, of course, a question whether the tendency will continue in double power. If not, then we must continue to combine the excellencies, that is, the prepotencies, of two families, just as we breed grades now.—*American Dairyman*.

FREQUENT MILKING.—The benefits of frequent milking are summed up by a French dairy paper, as quoted in the *Tribune*, showing a marked advantage over the practice of milking but twice daily. It appears that, "in an experiment with three milkings a day, for eleven days, a cow gave 170 quarts of milk. With two milkings the same cow gave only 146 quarts in the same number of days. Moreover, analysis showed that the milk in the first case was richer in butter globules than that in the second case in the proportion of 4.1 to 3.5." Observations with similar results have often been made in this country. The fact is well established that the shorter the time the milk remains in the udder the greater the quantity and the richer in butter, the wasting away of fats being less and the aggregate secretions more copious. The owner of the Whitestown herd of Holsteins finds it a paying practice to milk three times a day.—*New England Farmer*.

A POINT IN SELECTION.—In nearly all cases, farmers will find that small-boned animals are good feeders, will mature early, and possess fine flesh; while on the contrary, coarse bones and large joints indicate late maturity, poor feeding quality, and coarse flesh, with a large proportion of offal.—*National Live-Stock Journal*.

History of the Maryland Agricultural and Mechanical Association.

CHAPTER XIV.

We continue the proceedings of the evening of the 25th of October, 1853, by saying that at the suggestion of Col. Ware, resolutions were passed inviting other large societies to arrange the times of the fairs so as not to conflict one with another.

Mr A. B. Davis moved that the office of Inspector of Guano should be abolished, as it was useless and a burthensome tax on farmers. This caused a spicy debate between Mr. Davis, Mr. Calvert, who had first intimated that such should be the expression of opinion of the Society, Mr. McHenry and Dr. Humphreys in support of the resolution, and Dr. Wharton and Mr J. T. Earle in opposition. The resolution of Mr. Davis was finally carried.

On the third evening, October 26, after some routine business, Dr. Higgins, of Anne Arundel County, wished the Society to instruct him, as to their intention in awarding a premium for the best essay on Agricultural Chemistry, whether they desired to award it for a dissertation on analyses, formulas, &c., or on the best mode of applying the principles of Chemistry to this branch of industry. He took occasion also, to allude to the remarks made by the President on a previous evening in relation, to a note contained in his (the State Chemist's) report, and desired the President to inform him what was the substance of such remarks, as he was not present on the previous evening.

The Chairman responded to Dr. H. and repeated the remarks made by him on this subject and also, vindicated the course he had pursued while speaking of the subject on that occasion.

Dr. Higgins, in reply, complained that the chairman had done him injustice. He had said nothing in that *note* which was intended to depreciate the importance of an Agricultural School and Experimental Farm, but as these did not exist and there was no probability they would be speedily instituted, he had solicited several scientific gentlemen in various parts of the State, to make experiments on their own farms and report the results to him for publication in his next annual report. He had thus made a number of experimental farms in lieu of the one which did not exist, and thought he was entitled to the approbation rather than the censure of the Agriculturists of the State. The assertion that experiments in Agricultural Chemistry were humbugs, he thought could not be sustained; and it was vain to say these experiments were not of great practical value. As for the abolition of the office he held, he was satisfied the people of the State appreciated its usefulness, and he was willing to submit to them whether it should be continued. He felt conscious of having discharged the duties of the office faithfully and to the best of his ability, and in all his actions he had been

guided solely by a motive to advance agricultural interests. Whether he had done his whole duty was a question for the people to decide, and he was not fearful of their decision being against him.

The Chairman replied that he was sorry to prolong the discussion, but the gentleman had raised an issue that he had not intended, and he considered it necessary for him to say something in relation to it. He had not in his remarks found any fault with the gentleman's report. So far from it he had distinctly approved of it. But he regretted that the effect of the report was destroyed by the note. The note states that the plan of experimenting introduced by the gentleman, while it was attended with no expense, superseded the necessity of an Agricultural School and Experimental Farm. This he contended was not so. In an agricultural school, young men, sons of farmers from every part of the State, would be assembled and taught the various chemical theories. The analysis of soils, &c., could then be made in their presence and the theories applied and tested. When these had finished their studies, they would return to their homes competent to put these theories in practice and render them useful. This never could be brought about by any other plan and it was not, therefore, true that the learned gentleman's plan would "accomplish *all and more than a*" that could be accomplished by an experimental farm at the public expense." The gentleman finds fault with me for pronouncing these experiments humbuggery. Now, I am not alone in this declaration; if so, I would not contend for its truth. But I am supported by several great men. Among these I can name Liebig, one of the greatest chemists of the age, who has recently come out and denied the utility of many of his own laborious researches. Prof. Way, of the Royal Society of London, has also gone back, and now regards the importance of Agricultural Chemistry with much doubt and unbelief. The same may be said of Prof Booth, of Philadelphia, a man who has done more for agricultural chemistry in this country, than any other living. He, too, in a recent publication repudiates many of his former notions, and regards various Chemical theories as impracticable. He hoped the members of this Society and the agriculturists of the State generally would use all their influence to procure the establishment of an Agricultural School in this State, as there was no doubt such an institution would be of great advantage.

Dr. Higgins added a few remarks in justification of his report, and alluded to the retrograde conduct of the eminent chemists named. He said an answer to Prof Booth was in preparation and would soon be published, which completely refuted the positions at present occupied by the Professor. The refutation was founded on Mr. Booth's own discoveries and experiments, and was virtually *putting* Mr. Booth of yesterday against Mr. Booth of to-day.

Dr. Humphreys, of Annapolis, stated that he was one of the Committee on Essays last year, and he could probably answer Dr. Higgins' interrogatory as to what the premium was awarded for. It was not simply for analyses and formula

of soils and manures, but was for the method of making the analyses, and the manner of applying the principles of Chemistry to farming. The analyses made by Chemists might, for the most part, be made by farmers if they were instructed how to make them, instead of the experiments being wrapped up in the language of science. An essay on Chemistry, to be of any use to farmers, should be in plain, simple language. He asked leave to say in relation to Dr. Booth's article, that he had on this afternoon read a manuscript review of Mr. Booth's paper, at Dr. Stewart's office, and hoped Dr. Stewart would be requested to read it before the Society, as it would correct some errors on this subject.

Dr. Stewart expressed his willingness to read the review, if it were the wish of the Society to hear it,—and being desired to proceed,—commenced by stating that, during the past summer, a copy of the *Southern Planter* had been sent him, containing the paper which Mr. Booth had read before the Pennsylvania Society for the improvement of agriculture. This paper would occupy too much of the time of this meeting, and the following quotations would introduce the subject. . . . 1st quotation from Mr. Ruffin's editorial: . . .

"In justice both to our own views and to those of Professor Booth and others like him, we beg leave to remark, that to state the truth with regard to this branch of agricultural chemistry is not by any means to undervalue this budding science, either as to present or anticipated results. And it will be observed that the author in the concluding paragraph of his paper speaks very confidently of the present advantages of analysis in a scientific point of view, and hopefully of its future practical usefulness."

"His remarks of course do not include analyses made to ascertain the presence of a special ingredient,—lime for instance—which, along with one or two other substances, can be speedily detected at slight cost; nor do they apply to certain gentlemen who have s uiciously and modestly avoided to charge full rates, finding their compensation, in great part in the investigation of a science." * * F. G. R. Ed. The following are extracts from Mr. Booth's letter.

"The plain farmer or even the enlightened agriculturist, cannot determine with rigid accuracy the exact amount of the constituents of a soil, and then proceed by weight and measure to apply the manures requisite to render that soil productive."

* * * * *

"There is no little difficulty experienced by the chemist, in obtaining a fair average of a soil in any single locality, in order to subject it to analysis."

"It would appear then, that of all the fertilizing ingredients of a soil, lime can be estimated accurately, but the precise amounts of the others, cannot be given with confidence, while the determination of the most important is the least reliable. It is therefore not too strong a conclusion to say, that the present practical value of the analysis of soils consists in ascertaining how much lime they contain.

"There is a confirmatory argument against the

practical value of soil analyses, which has been so clearly set forth by Major J. F. Lee, of Washington, that I take the liberty of quoting his letter to me on the subject. We know that on all poor land of proper texture, the application of 200 lbs. of Guano to the acre will produce fair crops of grain and roots. *And this is the difference between a barren and a tolerably fertile soil.* Now this guano applies only 6 lbs. potash, 24 lbs. phosphoric acid, and 24 lbs. ammonia. But the acre contains 2,920,000 lbs. of soil (to the depth of a foot.) Can analysis now, or will it in any progress we may reasonably expect it to make, ascertain one part of potash in 600,000 of foreign matter, or one part of phosphoric acid in 150,000 parts of foreign matter, or one part of ammonia in 100,000? It may be answered, without the slightest fear of contradiction, that such determinations are greatly beyond the present power of chemical analyses. Whether they will continue so I will presently inquire; but the argument is strong against the present value of analysis applied to soils. *—*

"The farmer would doubtless prefer knowing how much benefit he is to reap in his own lifetime, than to leave it to posterity in a future of uncertain length. Guided by these considerations in the analysis of soil, I employed water, slightly acidulated with acid, to extract the fertilizing ingredients, supposing that my analysis would thereby express the now potential qualities of the soil. *—*

"From the observed effects of guano, bones, ashes, lime, and green sand, as well as from the analyses of ashes of plants, it is fair to infer that ammonia, phosphoric acid, potassa, and lime, possess fertilizing qualities; but the numerical measure of their value is hypothetical if not conjectural.

"Lastly—It will be observed that in the preceding part of these remarks, I have confined myself exclusively to the consideration of the practical uselessness of the analysis of soils at the present time. Can we look forward to a period, when such analyses can be performed, with such accuracy, expedition and moderate cost, as to be available in the art of agriculture? I am well satisfied that such an expectation is well founded. Our assay balances can show the millionth part of the weight placed in them, and may be still further improved. Reasoning from the past, the methods of analysis admit of almost indefinite improvement; and it is highly probable that new analytic processes will be devised, of much greater power, rapidity and accuracy, than those at present known, because every journal of chemical science conveys to us monthly and even weekly notices of the progress of chemical analysis."

The above is from the *American Farmer*, vol. IX, pages 174-5-6

[TO BE CONTINUED.]

THE MARYLAND FARMER for September is received and is well worthy the attention and support of every farmer in the county. The contents are varied and interesting. Make no delay and subscribe for it at once. Published by Ezra Whitman, at the low price of \$1 per annum in advance.—*Frederick Examiner.*

A Model Maryland Farm.

A Reporter of the Baltimore Gazette visits "Hayfields," the home of John Merryman, and furnishes the readers of that paper with a long, well written, and highly interesting description of the homestead, surroundings and its belongings, including stock, &c. We give copious extracts from it, and are sorry that want of room prevents our giving the whole article in this number, because it will be read with interest by Mr. Merryman's many friends, and there are many facts stated which may be of benefit to the general reader who is willing to follow as an exemplar one who has succeeded in making farming pay, while rearing a large family and securing a home as the haven of happiness for family and friends:

"On a well kept county road, one mile beyond the point where it branches from the York turnpike just beyond Cockeysville, on the Northern Central Railroad, in as pretty a country as the eye would wish to rest on, lies "Hayfields," the farm and homestead of the Hon. John Merryman. There are few persons, especially among the farmers of this and contiguous states, who do not know or have not heard of John Merryman of Hayfields. Few are unfamiliar with the genial, handsome face, which has been seen for 30 years at every gathering of the agriculturists of Maryland or has bowed many a courtly welcome over the ever hospitable threshold of his fine old homestead.

* * * * *

The writer then gives a glowing description of the beautiful rural scene presented by the approaches to and the ornamented grounds about the house, with a minute detail of the varied conveniences, comforts and elegant appointments of the interior of the large dwelling and then the following history of "Hayfields."

"Hayfields was purchased originally in 1808 by Colonel Nicholas Merryman Bosley from William Bosley and John Naylor, and consisted of only 200 acres of land. Colonel Bosley afterward, by purchases from Thomas Bosley and Archibald and Zachariah Dougherty, increased the estate to its present size—560 acres. Colonel Bosley immediately set to work to bring his farm to a high state of cultivation. He was one of the first to use lime for agricultural purposes and also to attempt the growing of timothy on upland soil. His success as a farmer was so great that as early as 1824 he successfully competed for a prize offered by the then agricultural society of Maryland for the best cultivated farm. The prize is an old-fashioned silver tankard, very heavy, engraved on one side with a hay field, with wagon loading, over which is the inscription: "*Sic rura Florebunt.*" Another inscription, above this, adds a double interest to the Relic. It relates that the presentation was made "By the hand of Lafayette, from the Maryland Agricultural Society for best cultivated farm, to Colonel N. M. Bosley, November 1824." Lafayette was at the time the guest of the Society, on his last visit to this country.

THE BOVINE BLOODS.

Passing from the house toward the barn to have a view of the famous Hereford cattle, the extensive buildings, including the family dwelling, gardener's house, the stables, wagon sheds, corn-cribs, hay-houses and barn itself were noticeable for the solidity of their construction, being all built of white lime-stone. It had always been Colonel Bosley's habit to utilize both time and labor unceasingly for the improvement of his farm and as every good farmer should, to look ahead. By him immense quantities of stone were hauled from his own lands, and piled conveniently, which, with the addition of lime burnt by himself, formed the material for the fine buildings now standing. Even the kitchen garden is surrounded by a substantial stone wall laid with mortar. These improvements were all completed previous to Colonel Bosley's death, which occurred in 1847, the present proprietor, so familiarly known as John Merryman of Hayfields, succeeding him. Mr. Merryman, like his relative, has made the improvement of his estate his life work. In 1849 he became identified with the Agricultural Society of Maryland and began to take a lively interest in the rearing of blooded cattle and sheep. He appreciated the importance of the stimulus given by competition and the great value of a comparison of experience permitted by such a body as an agricultural association. In answer to the question as to why he selected the Hereford breed of cattle, Mr. Merryman explained that at the exhibition of 1855 no Herefords were present, none up to that time having been brought into the State, except two or three bulls by Colonel Wm. D. Bowie, of Prince George's county. Mr. George Patterson exhibited Devons; Charles B. Calvert, Short-Horns; Ramsay McHenry, Gustav W. Lurman, David M. Perine and John Ridgely of Hampton, Ayrshires; Oden Bowie and J. Howard McHenry, Devons; Wm. C. Wilson, Jerseys; C. P. Holcombe, of Delaware, a splendid herd of Devons, and Judge George W. Dobbin, Holsteins. The Maryland fairs in those days undoubtedly offered the best exhibit of thoroughbred cattle in the United States. The one breed lacking was Herefords, and it was an additional inducement to Mr. Merryman that his ancestors came from Herefordshire, England, and the place where they settled in this State was called Hereford. It is claimed for the Herefords that they are a distinct race, and the hardiest of any of the English cattle, living upon the roughest quality and smallest quantity of feed, are of kindest disposition, mature early, are the most active and therefore the best working cattle, excepting possibly the Devons, and will maintain their position as milkers above the average of the English breeds now popular in this country. This last does not include the Channel Islands cattle nor the Ayrshires, which are Scotch. In 1856 Mr. Merryman introduced the first Herefords—a yearling bull and heifer—and has been improving the breed ever since having owned and bred to this time 344 cattle. All the bulls used by him as stock-getters are recorded in the several volumes of the Hereford Herd Book Society of England, of which Mr. Merryman is a member."

[TO BE CONTINUED.]

THE MARYLAND FARMER,

A STANDARD MAGAZINE.

DEVOTED TO

Agriculture, Horticulture & Rural Economy.
EZRA WHITMAN,
Editor.

COL. W. W. W. BOWIE, Associate Editor.

141 West Pratt Street

BALTIMORE.

BALTIMORE, OCT. 1, 1879.

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TO ADVERTISERS

The large circulation of the Maryland Farmer makes it one of the best mediums for advertisers of all classes. Its circulation will be largely increased by our reduction in the Subscription Price, and hence add to its advantages as a medium for advertisers. The terms of advertising will remain as heretofore.

The Maryland Farmer will be read this year by more Farmers, Planters, Merchants, Mechanics and others interested in Agriculture, than any other magazine which circulates in the Middle or Southern States, and therefore is the best medium for advertisers who desire to extend their sales in this territory.

☞ We call attention to our Reduction in
Price of Subscription.

☞ Read in the advertisements for this
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☞ Our friends can do us a good turn by men-
tioning the MARYLAND FARMER to their neigh-
bors, and suggesting to them to subscribe for it.

YOUNG MEN!

It is an easy way to make money by getting
subscribers for THE MARYLAND FARMER. Send
to cents for Specimen Copies, and ascertain what
Liberal Commissions we will allow.

TO OUR SUBSCRIBERS!

The reading matter in the MARYLAND FARMER will never be lessened by advertisements. We feel called upon to make this statement, as the large increasing circulation of our paper *naturally* increases the amount of advertisements, therefore we wish to say most positively to our subscribers, that the reading matter in the FARMER will always contain not less than 32 full pages monthly, and often 36 to 38; and should our advertisements reach 100 pages, it will not lessen the reading matter, but likely to increase it. We feel indebted to our correspondents for their largely increased interest in the FARMER, and we are sincerely thankful for the promptness of our subscribers in renewing their subscriptions since the commencement of the year 1879.

A LIBERAL OFFER.

Persons who subscribe now will receive the Farmer the balance of the year FREE, making 15 months for \$1.00

FOR A TRIAL.

The balance of the year, viz: October, November and December, will be furnished for 25 cents cash. These numbers will be perhaps the most interesting of all others for the year, as they will embrace reports of Fairs in this and other States, and a variety of articles by correspondents on vital agricultural subjects, as well as the substance of addresses delivered at the annual meetings of agricultural and horticultural societies.

THANKS, to the officers of the Virginia State Agricultural Society for their invitation to attend their next annual Fair at Richmond, on the 28th inst. These fairs always attract large crowds and have been always successful, and we believe this coming one will be more so than any of its predecessors.

OUR LETTER BOX this number is very interesting, and will be read with great interest by all interested in culture of Tobacco, and all who delight in that king of vegetables—tomatoes.

A FINE HEIFER.—Mr. Milton G. West of Frederick county Md., informs us that his Jersey heifer had a calf this year on the day she was 17 months and 12 days old, and that a month after calving, she gave in one week $4\frac{3}{4}$ lbs of butter. This is a large yield of butter for a cow only 18 months. Of course she had the care and plenty of food and slops. Her early maturity no doubt is owing to the breed in part, but chiefly to her excellent keep from her birth.

A 50 POUND WATERMELON.—We are indebted to our friend, Capt. Richard H. Duvall, for two immense water-melons sent us on 31st of August. One weighed accurately 49 lbs. 10 oz. Both were fully ripe and delicious. This speaks well for Magothy, Anne Arundel county Md, as a fruit region. The Captain is becoming as famous for melons as he is for his Smock and other peaches.

ACKNOWLEDGEMENTS.—We are much indebted to the Agricultural Societies of Kent, Frederick and Alleghany counties for complimentary tickets to their respective exhibitions, and will attend each if possible. We hope that each will meet with that success they so greatly deserve. These Fairs are the life of an agricultural community.

CLOSE OF THE PEACH SEASON—ITS EXTENT.—The peach season closes with the remarkable amount of 1,600,000 boxes shipped from the peach growing counties of Maryland alone. The largest shipments came from Queen Anne's and Kent counties. The largest shipments from one estate was that of the late Col. Wilkens, 75,000 boxes, and the next largest was from the estate of the late Col. B. S Ford. The Weems line transported about 100,000 from the Patuxent, Avondale, and the lower counties, St. Mary's, Calvert, and Prince George's. As is too often the case, it is said the producers of this great crop made but little, while the buyers realized large profits. The packing houses are said to have done a good business. As long as combination among buyers is effected, producers will remain the poor "hewers of wood and drawers of water." Can they not turn the tables?

THE Homing Pigeon Fanciers of Baltimore, Md. held a meeting on the 2nd of September, and inaugurated the "Maryland Homing Pigeon Society" for the purpose of training and breeding the Homing or Carrier Pigeons. The following are a partial list of members: H. F. Whitman, F. L. Hooper, Frank Fear, Charles Becker, G. L. Golder, J. H. Leonhardt, Thomas E. Simmence, Henry Lang, Mr. Broughan and Charles Meisa.

Maryland the Home for Immigrants—Its Advantages and Resources.

CHARLES COUNTY.

Charles county lies in the South-west part of the State, on the Potomac river, and convenient to Washington city.

History tells us the first settlement in this county was made in 1640. Its present capital is Port Tobacco, a small town on Port Tobacco creek, containing the Court House and other public buildings, two newspaper offices, hotels, stores and dwellings. The valley watered by this creek and near the town, contains some of the finest lands and handsomest country seats in the county. With an area of 450 square miles or over a quarter million of acres, the population of the county is less than 20,000, and nearly one half being colored people, it having been a large slave-holding county before emancipation. The general surface is uneven and the lands poor from neglect, yet susceptible of easy improvement. There are large areas very fertile, such as the valley above mentioned, the Potomac valley and other slopes which are well cultivated. The chief products are tobacco, corn and small grain, but the climate and soil are well adapted to fruit and vegetable growth, and a yearly increase in the production and marketing of these commodities is manifest. The facilities of water communication to Washington and Baltimore enable the people of this county to transport with facility and economy all the products of the fields and orchards. The Baltimore and Potomac Rail Road runs through the central portion of this county, to Popes' creek on the Potomac.

Charles county is healthy, well watered, and has fine forests, abounding in oak, chestnut, pine, cedar, locust, ash, and other valuable wood and timber. It is well supplied with stores, post offices, churches, mills and public schools, with a population refined, educated, kind, and marked for generous hospitality.

No description of this county would be complete without mentioning its fisheries, as within its limits on the Potomac are some of the largest fishing landings in the world, and formerly were immensely remunerative, producing millions of herring, shad and other valuable fish. These fisheries have not been productive of late, but will soon become of immense value under the instrumentalities of the Fish Commission in re-stocking our Maryland and Virginia waters with the old sorts of fish together with many other equally valuable kinds hitherto unknown to our fishermen.

There is no public debt of the county, and the annual tax on property is reasonable, so that the new settler may not be afraid on those scores.

We must confess that the public roads are not the best, but a great improvement in them is apparent within the last few years, and in time, they will rival the roads of other counties where the level and firm grounds are far better suited to form good high-ways. An influx of thrifty, active immigrants would soon by their added wealth and energy enable the county authorities to have these great public conveniences in prime order, and that would instantly enhance the value of real, and even personal property.

If persons of small capital only could see for themselves this county and realize the fact that with all its advantages, good homes could be purchased in fee for almost ridiculously low prices, they surely would embark their fortunes in a land which is capable of furnishing abundance of all the comforts of land and luxuries of the water; growing good crops of tobacco, and of all the cereals; where the finest fruits and vegetables can be grown and where stock raising may be profitably carried on, as has been proven by many who choose to invest in improved breeds whether of horses, sheep or cattle. To this day, men talk with pride of the race horses of Charles in the olden time, and of later days of those of Thompson and others—and the fine stock of the Matthews, the Chapmans, the Jenkins, the Mitchells, and a host of others.

As some evidence of the low prices at which excellent lands with improvements can be bought in this county, we may quote the late sales of Loch Lern estate, 299 acres for \$4,000, and Bromont farm in Piccawaxen district, 250 acres for \$900.

MARYLAND EXHIBITORS AT THE NEW YORK STATE FAIR, at Utica, September 16th, 1879.—Mr. John Merryman, carried off the herd premium for his Herefords, besides a number of first and second premiums.

Mr. A. M. Fulford, carried off seven *first* and one second premium for his Berkshires.

Messrs. Whitman, of Baltimore, received the first premium for their Young America Corn and Cob mill.

There were 25,000 people on the ground on the 11th. The two cattle, Uncle Tom and Netherland Queen, of which we give accurate engravings in this number of the Farmer, won *first prizes*. Messrs. Smith and Powell also received first premium in Holstein herd, and several first and second premiums for Holsteins of different ages. They also were successful in first and second premiums awarded to their Clydesdale and Road horses.

OUR LETTER BOX.

New York, September, 1879.

Eds. Maryland Farmer:—Perhaps it will be a surprise to you and to Gen. Tyler to learn that his superb specimen of the "Trophy" mentioned in your last number, was grown within a couple of miles of the spot where this celebrated Tomato had its origin; my father's farm (about midway between Franklin and Catonsville) where he spent the last forty-five years of his life. It was more than thirty-five years ago when he began his experiments. At that time the two leading varieties were the large double Red—very solid, but crooked and full of folds, and ripening unevenly; and the single Red—small and smooth, but little more than a sack of juice and seeds. He succeeded at last in putting the convoluted, solid contents of the one, into the smooth skin of the other.

Some ten years ago, Col. Waring, amazed at the fruit on my table, begged me to let him introduce it; and I grew the seed for him.

I gave him a sketch of its origin—too playful for business purposes (but which nevertheless contained the facts he required) a copy of which I inclose.

Notwithstanding the fondness for novelties in such things, I think if the same rigid care in selection is maintained that my father practiced in bringing the Trophy to perfection, it is likely to hold its own in the garden as long as there is a Short-Horn in the pasture.

Very truly, THOS. J. HAND.

THE TROPHY TOMATO.

Some twenty-odd years ago, there were under cultivation several strains of tomatoes, each strain endowed with its peculiar good points, and each having its following of admiring partisans. Yet every one of them, as even its friends were compelled to admit, had deficiencies and weak points.

By that singular fatality or caprice of the higher powers which apparently delights in bringing mankind within a step of prodigious discoveries, and then leaving them with that step untaken—as the magnet was known some two thousand years or so before anybody thought of steering by it—by this fatality, I say, it never entered the heads of gardeners that two or three of these families were complements of each other and had the power of supplying each other's defects. But in the fullness of time, and under a benignant conjunction of auspicious planets, an amateur, who cherished this succulent and savory fruit above all others—with the far-seeing judgment and patience of the Booths and the Bateses, the Thornes and the Sheldons—devoted his time, genius and energies to

breeding a PERFECT tomato. He reasoned well, and in a very few years was delighted to find how happily some of his selections had "nicked," and with what rapid strides he was advancing to the accomplishment of his heart's desire.

Having now obtained the best blood of the world, he boldly bred in-and-in, being *most rigid* in selection; and many a single tomato has he culled for which he would have scorned a price as much beyond its ordinary market value, as the thousand guineas paid for a prize bull exceeds the price of a village scrub.

Nature operates slowly,—*segnis operando* Natura,—and art, when it would improve Nature, must imitate her patience and her persistence. Twenty three years employed in this systematic cultivation have resulted in the production of a tomato in which the enthusiast may find as many fine points as an agricultural jury look for in the ring of prize Short-Horns. Large, smooth, solid, fleshy, it cuts like a round of beef—it is in short, the SHORT-HORN of tomatoes.

The Old North State,—Forever!

TOBACCO CURING, ORDERING AND SALES.

Granville county, North Carolina, seems to be the centre of the fair producing, high priced, bright tobacco of this country. A friend of ours, (of Herbert & Hairston of this city) made the following extracts from a letter for our use, from that county, for the information of our tobacco friends in this and other States:

"I am fixing for Flue Curing; and this reminds me of some sales recently made of tobacco in our county. Mr. H. sold one load of 1,146 pounds for \$783.06, and another of 1,146 pounds for \$631.91. Mr. — informed me yesterday that he had sold from eleven (11) acres of ground, *over six thousand dollars worth of tobacco.*"

This tobacco was unpacked, in a loose state, transported to the parties who buy in that way, assort and press in hogsheads or boxes for the manufacturers or buyers for a foreign market.

Invention has been stimulated by the high prices of tobacco in that region, and we note this description of the "Tobacco Orderer," which enables the producer to work in his tobacco without reference to natural seasons:

"I saw last week the "Tobacco Orderer," of which you wrote, at work. It is exceedingly simple, and is quite a success. It is nothing but a small boiler, (with handles so as to be moved from barn to barn), with a little pipe or hose running into and through the barn. The steam is forced

through this, through small holes made in the pipe, and is thus scattered all over the barn and "orders" the tobacco in a very short time. The price is 30 dollars."

We may add that the Flue used in that county costs some twelve dollars.

Much of our up-country tobacco of Maryland and Virginia, if cured by this process, might be used for *wrapping*, and command a much higher price than is obtained at present. However bright it may be, with the present mode of curing, it will change color by light pressure, and therefore is unfit for placing around the plug.

Apropos to this subject we give the following from the *Port Tobacco Times*.

The purchasing tobacco in transfer, as it is called, has grown to be quite a business in our county in the last few years. This method of disposing of the "weed" is frequently a great convenience to the farmer; especially to those who are not supplied with a screw prize. Many persons too, raising small crops, have not enough tobacco to make out a hoghead of uniform quality, and in a mixed hoghead the lowest-priced always sells the lump. The tobacco buyer, having a large number of crops to select from, can pack to advantage, and can thus afford to give the grower about as much as a small crop would bring in Baltimore. If it were not for our miserable inspection laws, our tobacco merchants could establish warehouses here and sell their goods directly to buyers for the European markets, thus saving commissions, "outage," &c. How long are the interests of a few lazy politicians to be considered of more importance than those of thousands of hard-working, industrious farmers? Let the farmers answer this question at the polls.

This question is of vast importance to Marylanders, and will, no doubt, receive due attention in the next Legislature of the State.—EDS. MD. FARMER.

Baltimore, September 10th, 1879.

Editors Maryland Farmer:

I herewith send you a list of sales of tobacco in Virginia, taken from the Richmond *Dispatch*, thinking that it may be interesting to our tobacco growers. What care, attention, and good cultivation can do in Virginia to enhance the value of the "weed," can be done in Maryland.

Yours truly, D.

These sales were all made by colored men living in Louisa county, and the tobacco was produced by their own hands. They were as follows:

Fountain M. Perkins, 2,980 pounds and netted \$699.06. Prices paid: \$38, \$34.50, \$20.50 and \$7.50.

M. L. Perkins 3,185 pounds, and netted \$507.62. Prices paid: \$33.50, \$20.50, \$16 and \$4.20.

W. N. Perkins, 1,640 pounds, and netted \$316.15. Prices paid: \$49.50, \$18.25, and \$4.80.

H. R. Perkins, 2,066 pounds, and netted \$185.07. Prices paid: \$16 50, \$10.50 and \$4.80.

R. Johnson, 1,080 pounds, and netted \$116.29. Prices paid: \$22 50, \$10.50 and \$4.80.

Ballard Dickinsons, 420 pounds. and netted \$139.54. Prices paid: \$42 and \$30.

Baltimore County Fair.

FIRST EXHIBITION AT TIMONIUM.

It has been years ago when we met the chivalry and beauty of Baltimore and Baltimore county at the old race track of Timonium. The place was new to us—we missed the old country tavern of Timonium, where in those jolly old times the annual carnival was held by the grand old people of those times, when men of Virginia and the South met congenial spirits of Maryland, and while order reigned, there was full limit to boisterous mirth and genial frolic. Another scene awaited our present visit. The scene was changed. Evidences of art and industry took the place of sports and merriment.

The grounds were well arranged, and the exhibition as a whole reflected credit on the managers and exhibitors. It was excellent for a county initial Fair.

The show of thorough-bred cattle in all the departments, and of horses and swine, poultry, and display of machinery and farming utensils were very excellent. The show of sheep was good, but might have been better. There was not as much stock as we might have expected from such a rich county as Baltimore. The house-hold department was such as we anticipated, and did great credit to the ever commendable ladies of that portion of the State, remarkable for good house-wives.

Mr. Hide, of Boothby Hill, was as usual in full force with his canned fruits, glorious tomatoes, and unsurpassed roasting ear corn. Mr. Corse exhibited a fine lot of vegetables, large canteloups and the prettiest, evenest lot of onions for pickling we ever saw.

On Thursday Hon. William T. Hamilton, delivered the annual address, replete with sensible suggestions and excellent views of farming, but chiefly devoted to the elucidation of what would seem to be his pet theory—education of farmers for their profession, and the dignity of the high calling. The address was listened to and applauded greatly by a large and very attentive crowd of ladies and gentlemen. We have only room for a few extracts of this practical and sensible discourse:

After speaking of the difficulties the farmer labors under from ignorance of the requirements of his soils, he says:

"In view of the vast sums of money spent upon fertilizing agencies, should we not come to realize the necessity of certain knowledge upon the subject? Toward securing this we should have competent chemists among us to analyze our soil and give to us its properties and its capacities. Your societies, or a sufficient number of gentlemen outside of them should organize in the counties to obtain chemists. Fifty or one hundred gentlemen could easily pay their several quotas, not so great in amount when compared to the benefit likely to accrue, and yet, when aggregated, would make an inviting compensation. You often spend \$30, \$50 or \$100 upon objects not so worthy—more matters of taste and pleasure than of a substantial value. Some may say it is the duty of the State to do this; that it is more of a general than a specific benefit. I say not. The State is not constituted to raise wheat. It has its assigned duties, and that is not one of them. The preservation of public order, the security of person and property, so that the citizen may labor in peace and reap the fruits of it. When the State does this it does that which gives to each of us the opportunity of attending to our private concerns and of promoting our private interests; and is not good, efficient, intelligent farming, with all the instrumentalities within our reach, among them? I want no paternal government to intervene in our industries and everyday walks. Government is not a parent to supervise our conduct, but an agent to execute the public will expressed through the form of law.

The primary fact is, there must be education, and in the right direction. There must be systematic education to fit our children for the great work of agriculture. It is the great factor in all industrial forces, and as such should be under the direction of intelligent and intellectual labor.

As some may say in their running thoughts as I speak, you educate the youth in all the high branches of learning, and instead of hardy, industrious farmers you will have them idle or lazy, or off into one of the learned professions. Do you think, they may contend, that a boy that is learned in the sciences, reads history, poetry, indulges in music and painting, could ever be brought down to the plodding work of a farm?—that is what I mean to say. The time will come when you will have as much learning on the farm and at the plow as elsewhere. The whole sentiment upon which the higher branches of education are required for your children must be reconstructed. Parents must change the system. Instead of sending their boys to be taught to get rid of the farm and to be a lawyer, a doctor, a minister, or a gentleman of leisure, or an office-hunter, they must be taught to stick to the farm, to make the old homestead or a new one more charming, more fertile and more profitable by cultivated knowledge and by intelligent labor.

The thorough diffusion of education will do this, when it becomes so that the humblest shall have their full share, and so common to all that it cannot be the advantage of the few.

* * * * *

All labor, however high or however humble in

degree, that adds to the comfort and promotes the good of man is alike honorable. It is no credit for us to work. It is a part of our moral and intellectual being. It is no credit for us to eat or sleep; our physical being requires it, and so with labor. It is a discredit not to work. It is the distinguishing difference between intellectual and moral life and that of the vacant savage. Do you suppose that this beautiful world of ours was just made with man on it to whirl around the sun for his amusement, and he only to bask in its beams, and to live upon fruits almost dropped into his mouth. Not so. This earth came from a perfect hand. Its great oceans and inland seas, its great rivers, its streams and rivulets and rills, its mountains, its plains and valleys, its forests, its herbage, its fruits and flowers were made by an Architect whose omnipotent power and perfect goodness are ever more and more developed to our growing knowledge as ages roll on and on. [Applause.]

This earth, filled with everything for the blessing and comfort of man, rolled on for ages one vast unbroken wilderness, not one spot upon it but as nature made it. There was no one to subdue the land or reveal its exhaustless resources for any good. Man came and ages still rolled on as before, in the appointed order of things, he struck the rock, as Moses did, and the waters of life poured forth, conscious if the grandness of nature when man came amongst the smallest and the feeblest of created things."

Among the Granges.

Howard County Grange held its annual pic-nic, under favorable circumstance and it passed off well. Prof. J. D. Warfield and Mr. Clarke, editor of Ellicott City Times, delivered impressive speeches.

A very interesting meeting in connection with the Grange movement in Howard county, took place on Saturday, September 13th at the 20-mile school house on the Frederick Turnpike. The occasion was the regular quarterly meeting of the Howard County Grange. In the absence of the W. M., H. O. Devries, F. C. Pue, of Limestone Valley Grange, occupied the chair. Bros. David Clark, Charles Hobbs, Joseph Barlow, N. A. Selby, and Artimas Sullivan, expressed their sentiments on the inspection and sale of tobacco and fertilizers; the opinions of Bro. Hobbs were worthy of consideration, as it is believed he received the highest price (\$50 per 100) ever paid to a Maryland farmer for tobacco; the majority appeared to be in favor of abolishing the inspection as at present conducted by the State.

Bro. D. Lawrence was invited to address the meeting—the subject of his remarks was the bearing upon grangers and farmers of the question of household economy, and the necessity of prompt and vigorous action to remove the unnecessary

burdens placed upon the farmer, He was present, he said, as the representative of the Executive Committee of the Montgomery County Grange to secure the co-operation of Howard County Grange in the public reforms that Grange has recently been discussing, allusion to which was made in the September number of the MARYLAND FARMER, in the matter of the resolutions of Brighton Grange on the bribery and corruption prevalent in political campaigns. After some interchange of opinion on minor topics, the meeting adjourned.

* The regular monthly meeting of Brighton Grange No. 60, was held at Brighton, Montgomery county, Md., on Friday, August 29th, at 3 o'clock P. M. W. M., Isaac Hartshorne presiding; after the regular routine business, the report of the Committee on Economy in Public Expenditures was called up, and debated until 6 o'clock, but as it has only been partially disposed of, a report of the details will be deferred until another time.

An interesting debate sprung up on the question of proportionate representation, by Bros. Gartrell, Hartshorne and Lawrence. Bro. Gartrell thinking that the right of petition would secure to farmers all they need from deliberative bodies, while the other Brothers thought that farmers should be represented by farmers.

The next business was discussion on the special question, viz: "What is the least quantity of lime necessary per acre, and the best mode of application? Bro. C. R. Hartshorne mentioned a case in which fertility had been secured by green crops, lime and fertilizers. Bro. J. G. Clarke gave an instance of good grass production from ground, unburnt stone lime, drilled in with wheat. Bro. M. Brown referred to a very heavy crop of clover seed raised on land limed 10 years previously. Bro. Clarke had mentioned that lime appeared to be particularly beneficial to clover and valuable in getting a clover stand, and not of so much value for timothy. Bro. Augustus Stabler stated that he had recently seen printed statements to the same effect; this could be accounted for by the large percentage of lime in the ash of clover. Bro. D. Lawrence said 34 per cent.—the largest percentage of lime to be found among plants ordinarily and extensively cultivated—the average application of lime ranges from 25 to 50 bushels, but he held that 10 bushels of pure unslaked lime was sufficient for one application. The question was finally closed by the adoption of the following resolutions which are submitted in full on account of the interest in the subject, (the question having been before the Grange for several meetings), and as showing the sentiment of the Grange on the subject:

Resolved, That the testimony of the Grange is in favor of the general application of lime.

Resolved, That we believe that much money has been expended in the application of lime in too large quantities and on unsuitable land.

Resolved, That we do not consider the application of 50 and 100 bushels of lime per acre as indispensable to a high state of fertility, and that ten bushels of pure lime per acre will be found sufficient for ordinary purposes of grain and grass growing, leaving out the chemical action of large quantities of lime in the soil.

Resolved, That we advise the application of 10 to 20 bushels of pure lime per acre to test its effect as an experiment before applying the usual large quantity of 50 and 100 bushels per acre.

Resolved, That we refer to lime made from stone, analysing nearly pure lime 90 to 99 per cent, and not the ordinary lime from stone containing only 5 per cent. or less of lime.

One question for discussion is, "What proportion of our crops does it take to raise and house them?" Another question proposed for discussion at next meeting is, "Will it pay to sow (or drill) rye in the fall, plow under in spring, plant peas and plow them under for wheat in the fall."

The W. L., introduced the question of making sugar from sweet corn stalks, and called upon Bro. Augustus Stabler to give the process, who stated that the juice was expressed from the stalk put into an evaporator and milk of lime, clay and sodium silicate added after the evaporation has progressed sufficiently, the juice is again manipulated when the mass is in condition for the refiner. Interesting experiments will be made in a week or two, and we hope to lay the whole process and the results before our readers.

Special attention should be made of the collation which was truly a Pomona Feast, several members bringing choice fall fruits—apples, pears, peaches—to grace the festive board. Among the articles brought by members, mention must be made of two stalks of Pearl Millet about seven feet high, raised by Bro. J. T. Holland

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MONTGOMERY AGRICULTURAL SOCIETY.—This Society's annual meeting on its Fair grounds at Rockville, September 3, 4 and 5, was an unusually interesting and successful exhibition. The show of cattle was very creditable, and all the other departments were well filled. The exhibits in Agricultural Hall were very attractive. The crowd of visitors were very large. Eloquent and instructive addresses were delivered on the 4th by Hon. Wm. T. Hamilton, and Hon. J. C. S. Blackburn, M. C., from Kentucky.

HORTICULTURAL.

Japanese Persimmon.

BY SAMUEL B. PARSONS.

In the June number of the *Gardener's Monthly*, I noticed that E. Manning says: "The Japan Persimmon tree is like many other expensive curiosities extravagantly puffed by propagators, and which to the purchaser is only to end in chagrin and disappointment." He does not question the excellence of the fruit, because that is asserted by many undoubted authorities, but condemns it because it has not proved hardy with him. It must be borne in mind that the American Persimmon is a Southern tree. It is rarely found indigenous with us, but abounds in all the old fields of the South from Virginia to Florida. While old trees have proved perfectly hardy here, Red Cedars, Altheas, *Arbor vitæ*, and other supposed hardy trees have been killed. Young trees of four to six feet high cannot be left unprotected with impunity. The orange cultivators know this principle well, for they lose thousands of young trees annually from a cold which does not touch trees ten years of age. The growth of young trees is succulent and late in maturing. That of old trees is short, hardy and early in maturity. A young Bartlett Pear is often killed by a cold which does not effect the older tree. I think Mr. Manning would not discard the Bartlett for that reason.

He forgets too, that the Japanese Persimmons which have thus far been sent out have not been propagated in this country and have therefore not been "extravagantly puffed by propagators" who were Japanese. The truth is that Dr. Loomis, a very intelligent gentleman, who had resided in Japan, and who had often eaten this fruit was so impressed with its excellence that he incurred the risk of bringing out a quantity of trees to this country, hoping that his countrymen would appreciate his efforts and sustain him. He issued a circular in which he gave unquestioned authorities for the excellence of the fruit, but did not attempt to fix the latitudes best adapted, as each variety had its own best latitude in Japan. These circulars, with a large quantity of trees, he placed in our hands to disseminate, knowing that we had a large experience with Japanese plants. These plants came to us dry from the voyage, having had no care nor special culture, and under instructions from Dr. Loomis we replaced all which did not grow of those which we sold. But coming from the opposite side of the globe where seasons are different, those which we planted out ourselves

were very late in starting and made no succulent a growth that we did not think it safe to expose them the following winter after our experience with young American Persimmons. Of eight which we left unprotected, four were killed and four are growing luxuriantly. Other parties have planted them on Long Island and lost none.

We hope to hear from others who have planted it. Those who have reported have been generally favorable. Hardiness is the only point on which we need information. There is little doubt that it will be hardy anywhere south of Baltimore. That it will be hardy north of that line can be proved only by experience. Of its behavior in this country we know too little yet to condemn it in any respect.

One of the largest importers of it assures us that he has known it to continue entirely dormant the first year after importation and grow well on the second. With us it has been as late as the 1st of August in showing life the first season after transportation. Throwing it away at midsummer because it does not show life would therefore be a mistake. There is so much evidence of the excellence of its fruit that if it can escape the borer which is equally fatal to it and to the American Persimmon, and can be successfully grafted in the open air on our native stock, we may fairly hope that the old fields of the South in which there are millions of trees will be made full of profit to their owners.

I hope that Mr. Manning will be willing to wait and see the condition of a Japanese Persimmon tree which has escaped the tenderness of youth and settled into the maturity of age.—*Gardener's Monthly*.

State Fairs for October.

American Institute, New York,	Sept 17 to Nov 22
Capital State (Texas).....Austin.....	Oct 23 to Nov 1
Connecticut.....Hartford.....	Oct 14 to 17
Fat Stock.....Chicago.....	Nov 10 to 15
Georgia.....Macon.....	Oct 27 to Nov 1
North Carolina.....Raleigh.....	Oct 13 to 18
North Georgia.....Atlanta.....	Oct 20 to 23
St. Louis.....St. Louis.....	Oct 5 to 11
Southern Kentucky...Glasgow.....	Oct 7 to 11
South Carolina.....Columbia.....	Nov 11 to 14
Virginia.....Richmond.....	Oct 23 to 31

MARYLAND COUNTY FAIRS.

Alleghany.....Cumberland....	Oct 7 to 10
Frederick.....Frederick.....	Oct 14 to 17

Chew Inckson's Best Sweet Navy Tobacco,

FOREST ROSE.



We are indebted to Mr. E. P. Roe, of Cornwall-on-the Hudson, N. Y., for a correct drawing of this popular new variety of the strawberry. Mr. Roe says of it: "It is very firm, beautiful and high flavored, and although not so high flavored as the Crescent, is a larger and better variety. I am testing it on the heaviest clay, moist loam, and a gravelly knoll, and in each instance has done well. I think it well suited to light soils where the Ju-eunda and Great America fail."

So eminent an authority as J. A. Warder, President of the Ohio State Horticultural Society, after visiting the original plantations of this strawberry, reports to that Society as follows:

"This new strawberry promises, indeed, to be a great acquisition to our stock of varieties. For a long time, the Wilson has borne pre-eminence as a market berry—for which purpose it is indeed admirably adapted—but cultivators have desired something even much better in quality. Here we have elegance of form, brilliancy in color, great size and firmness to bear transportation, all combined with table qualities of a higher order than in the Wilson Albany, which it surpasses even in field culture. When the enthusiastic proprietor invited some of his friends to visit the plantation

to see the largest strawberry in the world, the expression was received with a few grains of allowance, and was attributed to the warmth of an over-sanguine owner of a very good strawberry; but after a thorough examination of the bearing plants in different situations, the conclusion was reached that the Forest Rose was at least one of the very best strawberries known."

ENCOURAGEMENT FOR TOBACCO GROWERS.—

Our enterprising friend, Mr. John P. Hopkins, connected with the old and well known commission house of F. Neale & Son, informs us that they sold lately one hogshead of Maryland tobacco for \$15 per 100 pounds on account of Mr. O. W. Bowen.

The "St. Mary's Beacon" of 18th ult. says:

Mr. Duvall, tobacco salesman of Thos. Hall & Co., sold last week for Joseph H. Key, Esq., of our town, four hogsheads of tobacco (3,705 lbs.) for \$448 60. This tobacco was raised and conditioned by Mr. Welch, manager of the Indian Town estate of Mr. Key on the Wicomico river,

Mr. Purdy, editor of "Fruit Recorder," Rochester, N. Y., who is good authority says:

"If you want a crop of berries next season from fall set plants that will 'astonish the natives,' buy the 'Windsor Chief.' If you want the *earliest* berry among the newer sorts try 'Crystal City.' If you want the *latest* try the 'Glendale,' and the *largest* try the 'Sharpless.'"

Mr. P. has a large assortment of new and old sorts for sale. Among them are Captain Jack and Forest Rose, two as prolific and first-rate strawberries as we know. They were among some others we received from Mr. Purdy as a present last year, for which we tender him our thanks and congratulations upon having such choice strawberries, that suit our climate and soil, as well as the "Albany Wilson."

More Awards to Marylanders.

ROCHESTER, N. Y., Sept. 19, 1879.

This has been a lively week among us. The National Agricultural Congress and the National Pomological Association have been in session since Tuesday last, and upon that day also opened the show of the Western New York Agricultural Society, upon the beautiful grounds of the Driving Park Association. In attendance upon the former were Mr. Ezra Whitman, of Baltimore city, Prof. Grabrowskii, of the Maryland Agricultural College, Mr. Alex. M. Fulford and the Messrs. Merryman, all of Maryland. Mr. Edmund Law Rogers, of Baltimore, attended the meeting of the Pomological Association, while Messrs. Whitman, Fulford and the Messrs. Merryman represented the Maryland State Agricultural and Mechanical Association at the cattle show. Mr. John Merryman sustained fully the reputation already established for his Hereford cattle by taking the gold medal for herd and ten first premiums. Mr. Fulford carried all the first prizes, for which he contended with a number of competitors, and leaves New York with an established reputation of being, if not the first, equal to any breeder of Berkshire hogs in the country.—*Correspondence to Balto. Sun.*

Horsemen should read the advertisement in another column of Kendall's Spavin Cure. A remedy which does what this is claimed to do (which many prominent horsemen have testified to) should be investigated, for it is of great importance to every horse owner. It seems to be winning for itself an unprecedented reputation by its merits.

Mr. Wm. T. Walters, of Baltimore, received the \$150 prize for the best stallion and three of his get, for his horse Prince; second premium for Hannibal, \$30; and first premium \$40 for Nellie. This speaks well for his Percherons, which we have elsewhere spoken of in this number of the Farmer

The Roanoke and Tar River Agricultural Society will hold its tenth annual Fair, near Weldon N. C., on October 20, 21, 22, 23 and 24, 1879.—Liberal premiums offered for a great variety of articles.

LADIES DEPARTMENT.

Chats with the Ladies for October.

BY PATUXENT PLANTER.

AUTUMN.

"They have come—the autumn days,
When the Red sun's chastened rays,
In the wood,
Glimmer bright on shade and hue
That the summer never knew,
And pierce the thicket through
Where I stood.

It had come—the autumn time;
Passed the summer and the prime
Of my days.
Careless I of joys or fears,
For the sod was dank with tears:
Withered fell the hopes of years
In my gaze.

When the magic of thy love
Let the sun in from above,
Soft and bright.
And I saw with altered mind
That the autumn, too, was kind
In its light.

For, just as a brighter sheen
Glorifies the passing green
Of the leaf,
And the vistas op'ning clear
Let the wider scenes appear
Free from grief;

So might it be in life,
When the glory and the strife
Of its June
Had shed their flowers and fruits,
From pure or poisoned roots,
Late or soon.

We may find a grander view,
With a wider passage through
To our rest.
And that love which blossoms last,
When passion's dream is past,
Is the best."

How delightful in these October days are walks and rides and drives, in the woods, "over the hills and far away." The first coloring the leaves is very striking to a lover of nature, who, from day to day, watches the beautiful work of nature as it progresses in changing the robe of green, into those brilliantly colored dresses with which she clads the trees and all vegetable growth before they are forced into the sad and sombre habiliments of winter's semi-death state.

The boys and girls this month can enjoy themselves in going "nutting." Chincapins, chestnuts, filberts, walnuts, black and the white, hichory nuts, &c., are ripe and ripening under the soft hazy atmosphere of autumn, and oh! the happiness the young do enjoy in little parties that go for a day

in the woods, with their lunch baskets to gather nuts. Visions of early days come o'er me, and renew happy youthful scenes and bye-gone times, never again to be participated in, except in that imaginative retrospect so often indulged in by old people, because so pleasant and so vividly reproducing the rosy hours of boyhood and the early days of manhood, when such pleasures were associated with fond recollections of gushing young love. Inexorable time, why will ye keep up your unceasing round, and limit youthful hopes and happiness!

Now is the time to set your flower garden in good order, and prepare beds for bulbs and shubbery which you mean to set out this autumn. If you are to have new beds, and the soil is not a rich light alluvial one, mark out the bed and remove 10 or 12 inches of the ground, then spade and pulverize the bottom, mixing in some manure and oyster shells or broken stones or bricks to secure drainage. Fill up the space with a compost like this: one-third sand, one-third rich wood's earth or mould, and one-third the scrapings of the barnyard, all well commingled. The bed should be filled two inches above the path, a week or ten days before planting, so when settled it will be even with the walk. Each bed should have an edging of box, Alpine Bush Strawberry, or shells or bricks, set end-ways and slanting to give a neat pointed top.

In these beds, during this month and the early part of next month, plant Hyacinths, Tulips, Crocus, Lilies of all sorts that are hardy, Johnquills, Daffodils, Peonies, Narcissus, Snowdrop, Snowflakes, Fleur de Lise, &c., &c. They should be set, the larger bulbs 8 inches apart each way, and the smaller 4 inches. Breck says, "first place about one inch of fine sand where each bulb is to be placed, then press the bulb into the nearly its whole thickness, and cover it completely with fine sand. Having completed the planting, the whole should be covered with sound, fresh, sandy earth four inches deep. Before winter sets in, cover the bed with leaves or straw a few inches deep."

A bed or long border filled with Peonies, Iris, Lilies and *Dyletra Spectabilis*, or "bleeding heart," makes a fine appearance in early summer.

There should be a few *feathered* and grape Hyacinths in the corner of the Tulip and Hyacinth beds. Be sure and plant out plenty of 'Solomon's Seal' or 'Lily of the Valley'; they are exquisitely beautiful and very useful. The roots when well bruised, are curative to wounds, applied as a poultice, and one or two applications will remove the discoloration of the flesh, caused by a fall or from a blow.

Among other useful and ornamental plants, do not forget the humble but historic "Chamomile," which a cotemporary thus speaks of:

"A decoction of the leaves of common chamomile will destroy every species of insect, and nothing contributes so much to the health of a garden as a number of chamomile plants dispersed through it. No green house or hot-house should ever be without it, in a green or dried state; either the stalks or flowers will answer. It is a singular fact that if a plant is drooping and apparently dying, in nine cases out of ten it will recover if you plant chamomile near it."

Such bulbs and plants as you desire to keep over for winter blooming or to be protected for next spring's planting, should now be taken up and the bulbs dried in the shade, and put away in some place where they will not be too warm, nor yet get frozen. Plants can be taken up, trimmed and root pruned if necessary and potted in fresh rich mould and sand, with a little well rotted manure. Put them in suitable sized pots, and keep moist until they begin to grow. On appearance of frost remove at night to the house and, during the day let them have sun and air out doors until final removal to their winter quarters. It is a good time to prepare a pit for flowers to be kept in during winter unless, you are fortunate enough to have a good conservatory which is more satisfactory.

We heartily agree with the following sentiments we find in that elegant home-paper, "Moore's Rural Life."

"If there is any one thing more beautiful than another in a garden of flowers, that thing is a beautiful girl. Physically, there can be nothing better for daughters, and, indeed, for many wives than to take sole charge of a small flower garden. The benefits derived from early rising, stirring the soil, snuffing pure morning air, are freshness and glow of cheek and brightness of eye, cheerfulness of temper, vigor of mind and purity of heart."

I am so old fashioned I cannot part company without saying look well to your bees and poultry, and see that the cows are well fed morning and night to increase, or at least, keep up to their milk, for October butter is thought to be the best that is made during the year, especially for winter use.—Begin now to pack, and if you have a few cows, use small pots or firkins, so that each one can be filled by a few churnings; pack hard, cover with a cloth wrung out of brine, and cover it with two inches of salt to exclude air, and the butter will keep sweet, if it has been freed from all butter-milk and water before being put in the jar. Pack none but sweet, firm butter; it requires but little salt to keep it, if perfect cleanliness has been observed in the milking, milk utensils and the jar or firkin. Use none but "Ashton's dairy salt." It is the best and safest salt, used now by all the best butter-makers. Ordinary blown salt won't keep butter sweet. Try it for your own satisfaction, with other salt, and see the difference in two months after packing.

Our Visit to Rochester.

During our long and chequered life we do not remember to have spent a week of more unalloyed pleasure than we spent in Rochester, N. Y., beginning with the 15th of the month of September last. We were all the time on the go, between Agricultural Congress, the Pomological Society, and the Western New York Agricultural Society.

How time flies, and what changes it effects! About forty-five years ago we were in Rochester, then a small village of a few thousand inhabitants, unpretending and not prepossessing to a youth who was sick and away from home. Now, Rochester is a city of 100,000 population, and the Queen of the Union for flowers and fruits, seed stores, and other industries essential to the refinements of civilization.

The surroundings of Rochester are beautiful and the flower gardens of Vick and that home of Pomology, Ellwanger & Barry's nurseries, were visited by ourselves and hundreds of others, with great admiration. The courtesy of these gentlemen to their guests can never be remembered without the most grateful and tender recollections. We met with scores of old and tried friends, and made very many new pleasant acquaintances. It was a continuous feast of reason and flow of generous sympathies, which will long dwell on our remembrances. We were pleased to shake by the hand such old friends as Messrs. Saul, Saunders and Dodge, of the District of Columbia, Dr. W. B. Jones, of Georgia, who exhibited a cotton plant in bloom, which was an attractive sight in the North, Dr. J. A. Warder, of Ohio, Dr. Ellzey, of Virginia, and S. C. Brown, Esq., of New York, and many others whom we have known for years.

Pleasant acquaintance was made with General Le Duc, Commissioner of the United States Agricultural Department: W. J. Beall, Professor of Botany and Horticulture of Michigan Agricultural College; and the Rev. Dr. Burnett, of Canada, besides a host of others.

We were glad to meet our Boston friends, Dr. Sturtevant, editor of that able journal *The Scientific Farmer*, and Mr. Manning, Secretary of the American Pomological Society.

To our brothers of the Press, Messrs. Reynolds and Hopkins, of the *American Rural Home*, and Mr. Purdy, of *Fruit Recorder*, we are indebted for many courtesies.

On our return home we stopped at Albany, and called on Messrs. Tuckers, editors of the far-famed *Country Gentleman*, and received a kindly welcome, and through their politeness we visited the

New York State Agricultural Museum. This museum contains a great number of specimens of the flora, the products of the soil, the animals, birds, fishes, minerals, &c., of New York State, and also a large collection of implements of husbandry from the remotest periods to the present time, showing the gradual progress in improvement of such utilitarian articles. We could have well spent a day in examining the more important specimens this museum contained, but as our time was limited we had reluctantly to leave this extensive and useful museum, which was one of the great features of our trip and reflects the highest honor upon the intelligence of the great State of New York, and should be patterned after by other States.

We called on Mr. Ferris, of the Ferris Publishing Co. and editor of the *Poultry Monthly* and *Fanciers Weekly*, two excellent poultry journals, and were much pleased with our reception. Mr. Ferris seems to be over-burthened with work, and doing remarkably well with his new purchase of the *Fanciers' Weekly*, lately published in Baltimore and edited by Messrs. H. F. Whitman and Hooper.

In New York we called at the office of the *American Agriculturist*, Orange Judd & Co., and were gratified by our reception at this great agricultural publishing house. We regretted not meeting our venerable brother of that very popular monthly, Orange Judd, founder of the *American Agriculturist* and among the first who started an illustrated agricultural journal.

We cannot close this hasty sketch of our autumnal recreative trip without expressing our pleasure at becoming acquainted with Mr. Hiram Sibley, of Rochester, over seventy years of age and yet looking like a man of fifty. Mr. Sibley is the largest farmer in the United States, and perhaps in the world. Mr. Sibley owns over 100 farms scattered in different States, one of these is the famous Sullivan estate of 40,000 acres of land in one body. This immense estate he has wisely, we think, concluded to subdivide into many small farms. He is also at present successor to the gigantic Seed House of Briggs & Bro. and is this year largely engaged in growing seeds in Canada and the United States. W.

We have to thank Commissioner Le Duc for an advance copy of Report of the Department of Agriculture on "Diseases of Swine and Infectious and contagious Diseases incident to other classes of Domesticated Animals." It is illustrated with colored plates, and appears to be a valuable treatise which we shall notice more fully hereafter.

The Great Agricultural and Horticultural Meetings at Rochester, N. Y.

It is seldom one town can offer in one week so much attraction to the tourist, sight-see-er, farmer, horticulturist and mechanic, as Rochester presented during the week commencing the 15th September, 1879. First, the National Agricultural Congress assembled on the 15th, in the evening. In the absence of the President and Secretary, Mr. E. Whitman, of Baltimore, Md., being the Treasurer, was called on to preside. After some interesting conversational discussion, the meeting adjourned to the next evening. Mr. Whitman, on calling the congress to order, 16th inst., expressed his regret that President Janes was absent, and stated that the constitution provided for the choice of one of the vice-presidents to preside in the absence of the President.

On motion, J. R. Dodge, of the District of Columbia, one of the vice-presidents was called to the chair. He said that he greeted with pleasure the members of the association present, and hoped that the deliberations would be prolific of great good. The speaker regretted the absence of the President, but he was glad to announce that he had forwarded his address to be read. Hence any further introductory remarks would in his opinion not be proper.

Dr. Samuel C. Brown of Trenton, N. J., then read a paper on fibres and fibrous plants.

Dr. J. A. Warder of Ohio made some remarks about fibrous plants and argued forcibly against the mixture of flax and wool in fabrics.

Dr. W. B. Jones of Herndon, Ga., next read a very excellent and eloquent paper on "The importance of Humus in Southern Soil."

Dr. E. Lewis Sturtevant, of Boston, addressed the Congress on "Agriculture and Botany." His address was listened to with the interest that it so well deserved.

On the 17th, at 7.30 P. M., the Congress again met, and Hon. T. S. Gold, of Connecticut, read a very interesting paper on "The difficulties of Eastern Farming." Dr. C. V. Riley, of the Entomological Commission followed on "Agricultural needs of the South."

Prof. Grabowskii, of the Maryland Agricultural College, spoke in opposition to some of the views of Dr. Riley.

Dr. Jones and President Dodge, made some interesting statements about the South.

Prof. M. G. Ellzey of Virginia read a carefully prepared paper upon "The Industrial Reconstruction of the new South,"

There were other able papers submitted, but time did not allow them to be read; among which were those of President Janes and Dr. Warden, of Ohio, both of which were looked to with great interest and we regret were not read, but as they will appear in the transactions we shall then, or perhaps before, publish portions of the same in our journal.

The committee on final resolutions reported several of a highly complimentary character, returning the thanks of the Congress to the committees of local arrangements at Rochester, Messrs. Ellwanger, Vick and Hooper; to the Board of Supervisors, for the tender of their Council Chambers; to the proprietors of the Osborn House and of the Whitcomb House; to the citizens generally for their attentions, and to the reporters for their correct and graphic reports of the proceedings,

The Convention then adjourned to meet in Atlanta, Ga., on the last Tuesday in January, 1880.

The American Pomological Society.

This association met at Rochester, N. Y., on the 17th of September. There was a large attendance of members. The great profusion of every variety of fruits in season, and a brilliant display of flowers was exhibited in a large tent on the Western N. Y. Agricultural Fairgrounds. In the lamented absence of President Wilder, on account of his recent painful accident, Dr. Warder was selected to preside over the deliberations of the meeting. The Mayor, Mr. Parsons, in a beautiful address, welcomed the Society to Rochester, and was appropriately responded to by President Warder. During the session there were several able reports and essays read, and instructive and interesting discussions.

On the evening of the 18th, a general reception was given to all the members by D. W. Powers, Esq., at his galleries of paintings, and a magnificent banquet was prepared in the large hall over the art-rooms, where a superb display of fruits and flowers was exhibited.

THE Western New York Agricultural Society held its meeting at Rochester on the 16th to the 20th, and it proved to be successful. Our Maryland competitors carried off several prizes for cattle and swine, which we notice elsewhere in this number of the MARYLAND FARMER.

THE SECRET KEY TO HEALTH.—The Science of Life, or Self-Preservation, 300 pages. Price only \$1. Contains fifty valuable prescriptions, either one of which is worth more than ten times the price of the book. Illustrated sample sent on receipt of 6 cents for postage. Address, Dr. W. H. Parker, 4 Bulfinch Street, Boston, Mass. Oc-3t

For the Maryland Farmer.

Spavin, Ring Bone, etc., with Methods of Treatment.

The horse is our noblest domestic animal, perfect in structure, imposing in appearance, full of intelligence, and when kindly treated, giving in return an affection almost human in its nature and performing to the last point of endurance the tasks imposed, and we may add, is too often subjected to the hardest and harshest usage of any of our animals, and probably for this reason is the most liable to disease and blemishes.

Many an otherwise valuable horse is disfigured for life and rendered more or less unfit for service by ugly spavins, unsightly ring-bones, splints, etc. Sometimes these difficulties are not of a serious nature, do not lame the horse, or make any material difference in the ability for performing work on the farm, but such animals are rendered unsaleable, or if disposed of it must be at a sacrifice price. Generally, however, the horse is permanently lamed unless the cause is removed, which is very seldom, and often entirely ruined for travel or work.

Spavins are most generally produced by a strain or over-work in drawing. The bony excrecence or substance of which it is composed will grow quite fast and sometimes give the appearance of an enlarged joint, and unless attended to in season will soon become difficult to manage. Many remedies have been devised for this difficulty, but usually with very indifferent success. Blistering is generally resorted to when anything is attempted, and will in some cases, when properly performed, stop the growth of the spavin, but will not remove the bunch already formed or cure the lameness, besides the process is painful one, producing soreness, and rendering the horse more or less unfit for service.

Some four years ago, Dr. B. J. Kendall, of Enosburgh Falls, Vt., having a horse troubled with spavin, tried blistering to cure it. The operation appeared so painful and unsatisfactory that it was abandoned with the belief that a remedy less torturing in its application and more certain in its effect might be devised. Accordingly the Doctor set himself to work, and being a practical physician and druggist, succeeded in preparing a remedy, that since its introduction to public notice, has achieved a success that is of the most satisfactory character. About three years since, hearing of several cases where "Kendall's Spavin Cure," as the remedy is termed, had been used with good effect, I took some pains to ascertain the facts in the case and reported the same for several of our leading agricultural journals. I will give one or

two instances to which I am personally knowing. Mr. R. A. Gains of Berkshire, Va., owned a valuable horse having a spavin of the size of half a hen's egg, and producing severe lameness. After trying the usual remedies with no effect, learning of "Kendall's Spavin Cure," a bottle was obtained and used according to directions. The application produced no blistering, did not appear to be painful and left no scar or callous. A one dollar bottle was used, and it cured the spavin, stopping the lameness, and removed the bunch. I examined the leg carefully and could not find any difference in the joints, and could not tell upon which the spavin was located. The horse has been worked hard since, and upon examining him the second time, awhile since, after an interval of three or four years, was pleased to find no return of the difficulty in any shape or manner; one leg is as sound and perfect to all appearance as the other.

Mr. F. Weld also of Berkshire, Vt., treated a bad case of spavin with this remedy, and in six weeks the lameness was gone, the bunch nearly removed, and he considered the horse cured. There has been no return of the difficulty since, although the horse has been worked hard. A. A. Simpkins of West Enosburgh, Vt., has had an experience similar to the above, and others might be given, but these may be considered sufficient to establish the fact of the curative powers of this remedy, and also which is equally important the *permanence* of of the cure; the relief afforded being not temporary but lasting in effect.

Equal success has been had with "Kendall's Spavin Cure" in the treatment of splints, curb, ring-bone, bruises, strains of different kinds, callos, etc. I wish to call particular attention to this as a humane method of treatment, the remedy, while it is efficient in operation, yet does not produce pain or soreness, as is the case with most applications. This feature is deserving of notice and is receiving commendation from many prominent gentlemen in this country, among whom I would mention Mr. Charles A. Currier, special agent for the Massachusetts Society for the Prevention of Cruelty to Animals, Boston, Mass., and others.

Although this remedy was originally designed for the treatment of horses, yet it has been used for human ailments, such as different forms of rheumatism, or deep-seated pains of long standing, with equally good effects.

"Kendall's Spavin Cure" has been introduced throughout the most of this country, and is being put in the hands of all the leading wholesale druggists from whom it may be obtained, or through whom it may be ordered by every druggist. Dr. Kendall has also compiled a small work or "Treat-

ise on the Horse and his Diseases," of about 100 pages fully illustrated, and giving in a small compass, a large amount of useful information, free from all technical terms, and which will be worth many times its cost of twenty-five cents to all owners of horses. Something of the favor with which this work is being received by the public may be inferred from the fact that one hundred thousand copies or over have been sold since April last. Should any one desire further information upon any matter contained in this article, they will please address Dr. B. J. Kendall, at Enosburg Falls, Vt. E. R. TOWLE.

West Berkshire, Vt., Aug. 1879.

PUBLICATIONS RECEIVED.

Webster's Great Speeches.—One large octavo vol., 772 pages. Price \$3. We have to return thanks to the publishers, Messrs. Little, Brown & Co., Boston, for an advance copy of this very valuable book. It is the first time that a choice selection of best speeches of this great lawyer, orator and statesman have been published in one volume in elegant typography, and at a price so low as to put them in the reach of all who wish to study classic oratory. As it contains his finest orations on occasions of national interest, his off hand addresses and great legal arguments in remarkably important cases, it should be in the possession of every lawyer, scholar, and young aspirant to fame, in our whole country. A more valuable present from a father to his son could not well be found in the long list of books, after the Bible and Shakespeare.

The First Bi-ennial Report of the State Board of Agriculture of Kansas, received from Mr. Gray, Secretary. It is full of instructive reading and is well illustrated and handsomely printed. We shall avail ourselves of its contents at some time.

Report of the Agricultural Experiment Station of Middletown, Conn., received with thanks, through a friend, from Professor Atwater. It is a voluminous report of field experiments with fertilizers, and contains other matters of great importance to the reading farmer. It well sustains the high reputation of Professor Atwater, who is too well known to need commendation from us. In this report there is a wealth of instruction to be gained by a careful study, and many suggestions and facts worth being treasured in memory and practically carried out.

Letter of Commissioner of Agricultural Department, U. S., on Manufacture of Maize and Sorghum sugars.—Gen. Le Duc deserves the thanks of the American people for his indefatigable efforts

to introduce the two new industries into this country, that of sugar making and tea growing, which necessities drain our country yearly of hundreds of millions of dollars in specie. We are confident that the commissioner is right in his views, and that we can in time grow our own tea to a great extent, and with our cane, sorghum, corn stalks and sugar beet, become not only independent of foreign producers, but become large exporters of sugars. What a gain! Instead of buying \$100,000,000 worth of sugar, to export, \$50,000,000 of that article, besides giving employment to 200,000 people, now wanting the necessities of life because they have no work to do.

Hand book of North Carolina.—We return thanks to Hon. L. L. Polk, Commissioner of Department of Agriculture, N. C., for this valuable book embracing Historical and Physiographical Sketches of that State, with statistical and other information relating to its industries and resources. &c. Every State in the South should have an able man at the head of a similar Department, to prepare just such a book for circulation, that immigrants might be well informed from a reliable source of the true condition and the real advantages connected with every section of the State, they may desire to settle in. They would thus save time and money, and be not subject to deception in learning all about the place they may immigrate to, and not be blindly led astray to wild, unsettled regions.

Maryland Law Record.—This is a weekly publication in Baltimore City, at only \$2 per year. It gives full reports of all the decisions of the Court of Appeals, and important decisions of other Courts in this country and in England, transfers of property weekly in Baltimore and trustees sales, &c. It is well edited and neatly printed, and deserves a place in the library of every lawyer and capitalist in the State, and should be patronized by all in and out of the State who feel an interest in the judicial decisions affecting the laws regulating personal and real estates, and other matters pertaining to the several legal rights of citizenship. We highly commend it to an intelligent public.

Vegetarianism, the Radical cure for Intemperance, by Harriet P. Fowler.—This is a well written plausible argument that should be read by all who feel that they are intemperate and should be circulated by the apostles of temperance. *Vegetarianism* is certainly, if true, a pleasant remedy and cure for drunkenness, and a trial of the system can incur no ill effects, and may lead to the happiest effects. Who will be the first to experiment with this cheap and pleasant cure of the greatest evil which afflicts the human race?